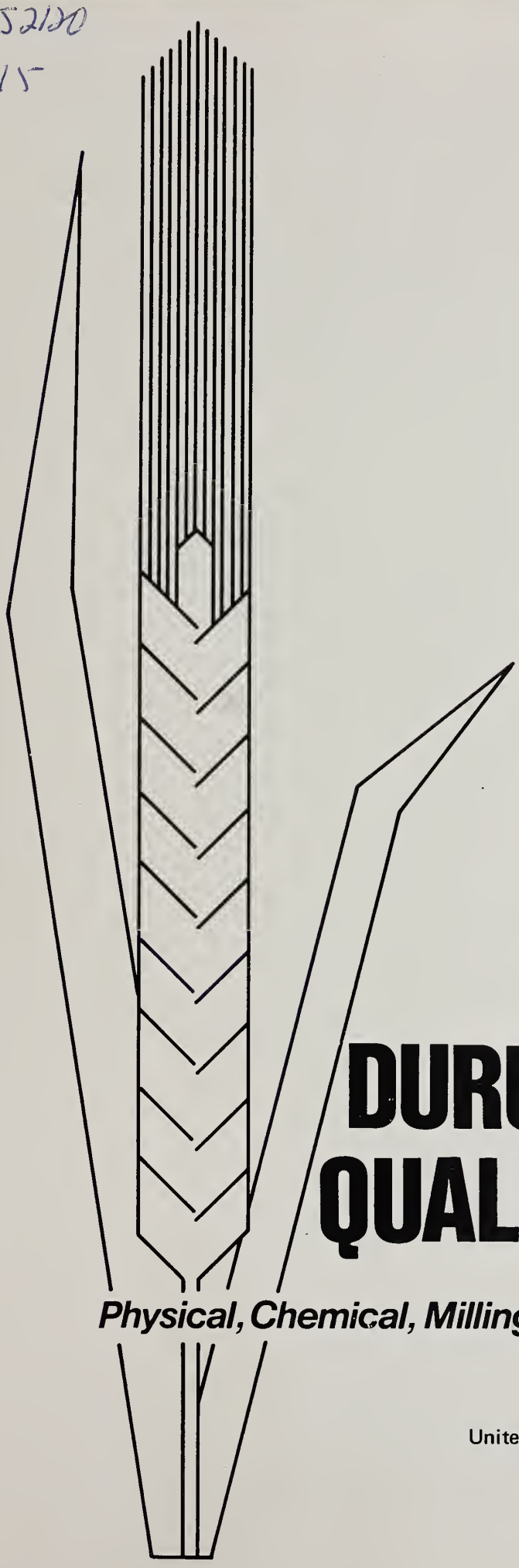
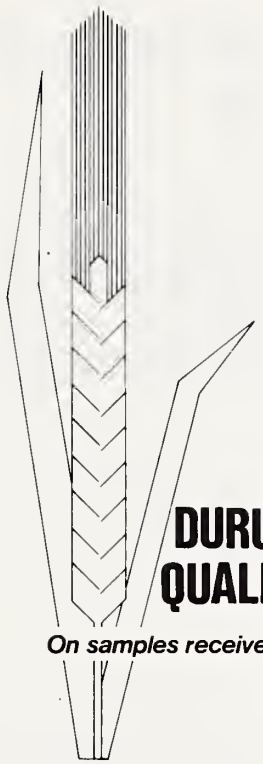


1985 CROP

DURUM WHEAT QUALITY REPORT

Physical, Chemical, Milling, and Spaghetti Characteristics

United States Department of Agriculture
Agricultural Research Service
North Central Region



DURUM WHEAT QUALITY REPORT

On samples received from the 1985 crop

Source:

Spring and Durum Wheat Quality Laboratory
USDA, Agricultural Research Service
Harris Hall, N.D.S.U.
Fargo, North Dakota 58105

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
in cooperation with
STATE AGRICULTURAL EXPERIMENT STATIONS

QUALITY EVALUATION OF DURUM WHEAT VARIETIES

1985 CROP1/

by

R. D. Crawford, A. A. Ottenbacher, M. A. Dregseth, Technicians, J. E. Wohlman, Secretary, Agricultural Research Service; 2/ L. L. Nolte and M. Skunberg, Technicians, NDSU; 3/ Wallace H. Kunerth, Research Chemist and V. L. Youngs, Research Food Technologist.2/

1/ This is a progress report of cooperative investigations containing some results that have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is primarily a tool for use of cooperators and their official staffs and to those persons having direct and special interest in the development of agricultural research programs.

This report was compiled by the Agricultural Research Service, U. S. Department of Agriculture. Special acknowledgment is made to the North Dakota State University for their facilities and services provided in support of these studies. The report is not intended for publication and should not be referred to in literature citations or quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved. Cooperators submitting samples for analysis have been given analytical data on their samples prior to release of this report.

2/ Hard Red Spring & Durum Wheat Quality Lab., NDSU.

3/ Dept. of Cereal Science & Food Technology, NDSU.

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INTRODUCTION

The twenty-second Durum Wheat Quality Report contains data for the 1985 crop. Samples of standard varieties and new strains of durum wheat grown in cooperative experiments in the durum wheat regions of the United States4/ were milled and evaluated by the Hard Red Spring and Durum Wheat Quality Laboratory in cooperation with the Department of Cereal Chemistry and Technology on the campus of North Dakota State University at Fargo, ND. Methods and techniques are described in detail in the text of the report.

All samples received that were large enough to mill on the Buhler experimental mill were processed into spaghetti using the macro spaghetti processing method as described on page 12. A five pound wheat sample is required for the above method. All other samples were milled using the micro procedure and were not processed into spaghetti. Those samples having acceptable kernel characteristics and dust color score, if possible, should be included for macro processing the following year.

The purpose of this report is to make available to cooperators the quality data on standard varieties and new selections of durum wheat from the 1985 crop.

4/ Cantrell, R.G. and Brosz, J. Wheat varieties grown in cooperative plot and nursery experiments in the spring wheat region in 1985. Department of Agronomy, North Dakota State University, Fargo, ND.

SOURCE OF THE 1985 CROP SAMPLES

Tests were performed on six hundred twenty-two samples from 17 stations and eight states (Washington, New York, California, North Dakota, Arizona, Montana, South Dakota and Minnesota) for quality evaluation. However, data on 28 of these samples are not included in this report, because this information was of interest to plant breeders at specific experiment stations only. Data presented in this report are from the Field Plot Nursery, Uniform Regional Nursery, Western Durum Nursery, Preliminary Nursery and the Advanced Nursery samples.

FIELD PLOTS - 22

Fargo - North Dakota
Mesa - Arizona

UNIFORM REGIONAL NURSERY - 212

Sidney and Bozeman - Montana
Selby and Day County - South Dakota
Crookston and Morris - Minnesota
Williston - North Dakota

WESTERN DURUM NURSERY - 21

Royal Slope - Washington

PRELIMINARY NURSERY - 70

Davis - California

ADVANCED NURSERY - 269

Imperial Valley, Delta, Kings Co.,
El Centro and Davis - California

1985 UNIFORM REGIONAL DURUM NURSERY

LIST OF ENTRIES

Entry No.	Entry	Sel. or P.I. No.	Year Entered	Origin
1	Mindum	--	1929	Minnesota
2	Ward	D6674	1969	ND-USDA
3	Crosby	D6715	1970	ND-USDA
4	Rugby	D6722	1970	ND-USDA
5	Cando	D7057*	1972	ND-USDA
6	Vic	D74112	1976	ND-USDA
7	Lloyd	D771*	1978	ND-USDA
8	Medora	DT433	1980	AC, Winnipeg
9	Monroe	D793	1981	ND-USDA
10	D7224/Vic	D79168*	1983	North Dakota
11	DT427/Vic	D79103	1983	North Dakota
12	D74111/Cd	D79209*	1983	North Dakota
13	D764/D73121	D79104	1983	North Dakota
14	D7456/Vic	D7925	1983	North Dakota
15	D75149/Vic	D8012	1984	North Dakota
16	D75149/Vic	D8016	1984	North Dakota
17	D73121/Vic	D8019	1984	North Dakota
18	Cal/Ed	NHD81-466*	1984	NAPB
19	Ed/Ward	NHD81-485	1984	NAPB
20	Laker	C881-4*	1984	WPB
21	Rlt/Vic	D8172	1985	North Dakota
22	D7690/Vic	D8191	1985	North Dakota
23	D7690/Vic	D8193	1985	North Dakota
24	D7690/Vic	D8194	1985	North Dakota
25	D7734/D75149	D81114	1985	North Dakota
26	D783/Vic	D81151	1985	North Dakota
27	D785/Vic	D81154	1985	North Dakota
28	Lloyd/Cd	D81183*	1985	North Dakota
29	D72110/Clt	DT380	1985	Univ. Sask.
30	---	FA882-268	1985	WPB

* Semidwarf

WESTERN REGIONAL DURUM

LIST OF ENTRIES

Durox	T83 136
Grandur	T83 138
Irridur	T83 140
Lloyd	T83 147
Modoc	T83 175
Signadur	T83 179
Waid	TL 730471
Yavaros 79	WPB 881
D79209	WPB 881-04
HD810466	WPB 881-92
NK790893	

METHODS

The methods used in the testing of the samples were essentially the same as given in the last report.

Briefly, the following methods and terminologies were applied:

Test Weight Per Bushel - The weight per Winchester bushel of dockage-free wheat.

Thousand Kernel Weight - The 1000 kernel weight was determined by counting the number of kernels in a 10 g sample of cleaned, picked wheat on a Seedburo seed counter5/.

Kernel Size - The percentage of the size of the kernels [large, medium, and small] was determined on a wheat sizer as described by Shuey6/.

The sieves of the sizer were clothed as follows:

Top Sieve - Tyler # 7 with 2.92 mm opening
Middle Sieve - Tyler # 9 with 2.24 mm opening
Bottom Sieve - Tyler #12 with 1.65 mm opening

Protein Content - The protein (14% m.b.) was calculated by multiplying the percent nitrogen, as determined by the standard Kjeldahl procedure, by the factor of 5.7.

Milling - All samples were cleaned by passing the wheat through an Emerson kicker and dockage tester and through a modified Forster scourer Model 6. The clean, dry wheat from the larger 2 kg samples was tempered in three stages: first to 12.5% moisture at least 72 hours prior to the second stage which is to add an additional 2.0% for 18 hours to give a cumulative moisture of 14.5%, then a final temper of 3.0%, 45 minutes prior to milling. The smaller 200 gram samples were pretempered to 12.5% moisture for at least 72 hours. They were then tempered to 16.5% moisture and allowed to stand overnight prior to milling.

5/ Mention of a trademark name or proprietary product does not constitute a guarantee or warranty of the product by the U. S. Department of Agriculture, and does not imply its approval to the exclusion of other products that may also be suitable.

6/ Shuey, William C. A wheat sizing technique for predicting flour milling yield. Cereal Sci. Today 5:71 (1960).

The field plot and large advanced samples were milled on a Buhler experimental mill specially designed for milling durum wheat. The mill is equipped with corrugated rolls throughout and the semolina purified on a Miag laboratory purifier. All of the stock is handled pneumatically. The mill flow is shown on page 9. The purified semolina is used in testing the quality of semolina. The semolina extraction was calculated on a total products basis. Prior to milling this year's samples, the Buhler mill and purifiers were adjusted to maximize semolina yield, yet keep the speck count to an acceptable level.

The small samples were milled according to the method of Vasiljevic et al 7/. The flow diagram of this system is shown on page 10. In addition to this method the "purified" semolina was rebolted on a strand sifter equipped with a #35 tyler sieve. The sample was sifted for 30 seconds. The throughs of the #35 wire were classified as rebolted semolina. This was the material tested. The overs of the #35 wire were classified as crude shorts, and the overs of the rotating #34 wire sieve were classified as bran.

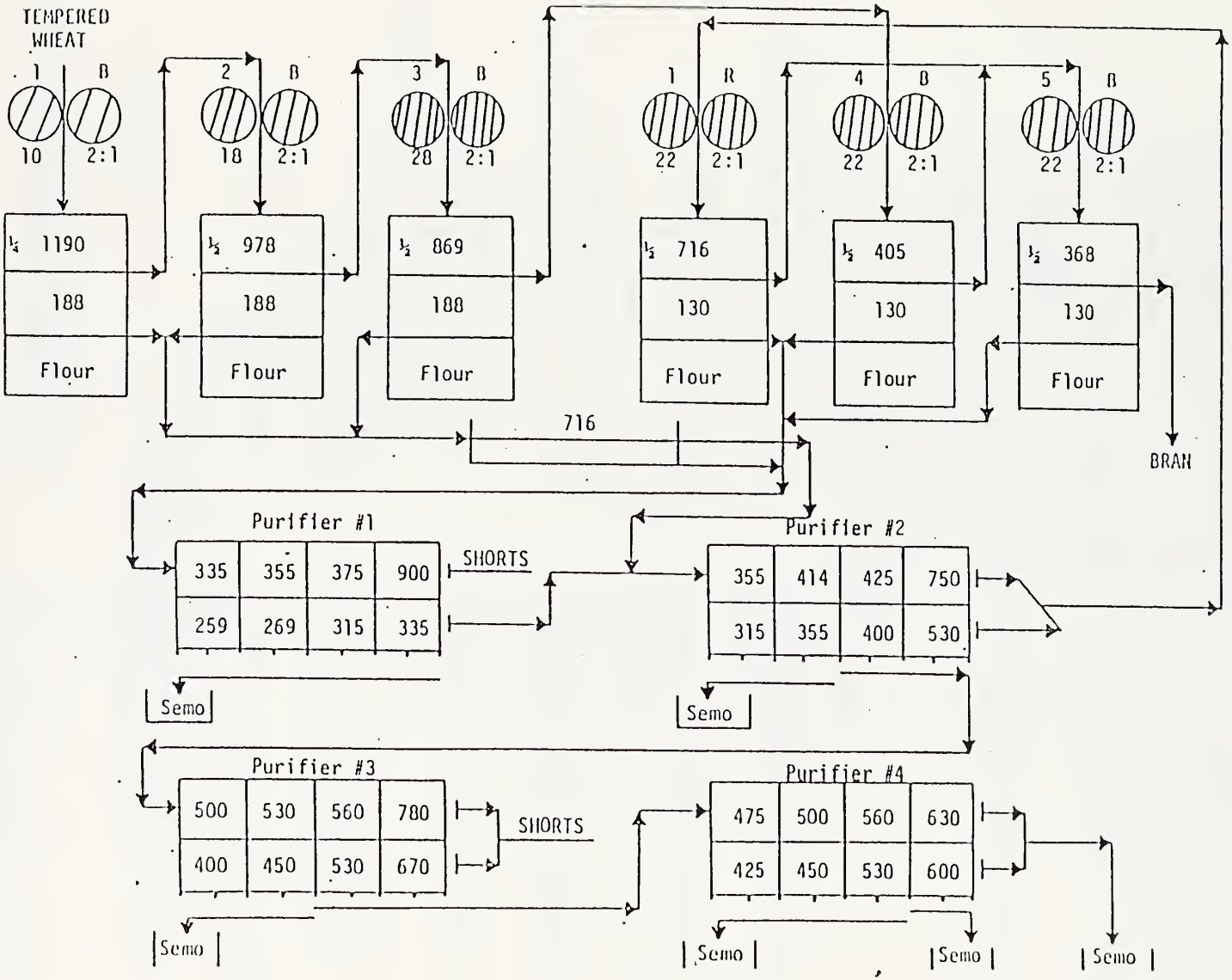
Semolina Extraction - For both the macro and micro method of milling, the percent semolina extraction was calculated on a total product basis.

Speck Count - The number of specks in three different one-inch square areas of semolina enclosed by a special glass and frame were counted. Any materials other than pure endosperm chunks, such as bran particles, etc. were considered specks. The average of three readings was converted to the number of specks per 10 sq in (speck count). Speck count is done only on the macro milled samples.

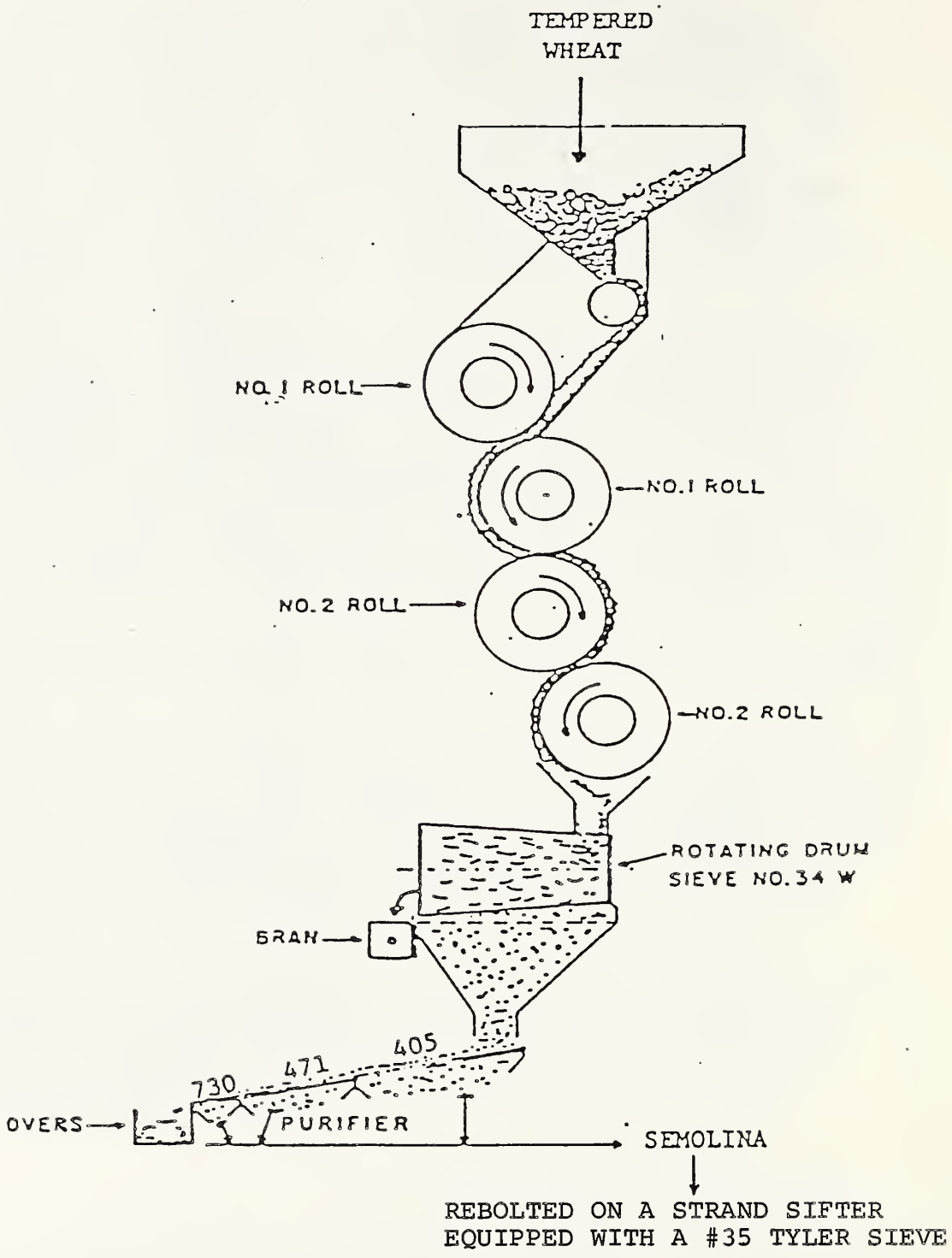
Color Score - The color of the spaghetti or semolina has been generally accepted as the most important single grading factor. A deep amber or golden color is the most preferable. The amount of yellow pigmentation determines the color.

7/ Vasiljevic, S., Banasik, O.J. and Shuey, W.C. A micro unit for producing durum semolina. Cereal Chem. 54:397 (1977).

FLOW DIAGRAM FOR LARGE DURUM WHEAT SAMPLES
MACRO PROCEDURE



FLOW DIAGRAM FOR SMALL DURUM WHEAT SAMPLES
MICRO PROCEDURE



Samples which have a color rating 1.5 point below the standard spaghetti score or 15 points below the standard semolina color score are unsatisfactory. It is possible that the average color score for a crop year may be higher or lower than average; therefore, this would be taken into consideration when giving the overall rating of a variety over a number of years.

The grading system shown below has been adopted for scoring the semolina color and spaghetti relative to the standard color score.

COLOR SCORE

Semolina	Spaghetti	Description
15 above	1.5 above	Much deeper and intense yellow pigmentation than standard
10 above	1.0 above	Deeper and more intense yellow pigmentation than standard
5 above	0.5 above	Slightly deeper and more intense yellow pigmentation than standard
Equal to Standard	Equal to Standard	Standard quality, depth and intensity of yellow pigmentation
5 below	0.5 below	Slightly less depth and intensity, but sufficient quantity of pigmentation
10 below	1.0 below	Slightly less quantity as well as depth and intensity of pigmentation than the standard, but still sufficient to be rated satisfactory on the basis of color
15 below	1.5 below	Sufficiently less quantity of yellow pigmentation than the standard to give a pale yellow color and graded unsatisfactory for color score.

Semolina Color Score - The semolina color score was determined by using Model D25M-9 Hunterlab tristimulus colorimeter equipped with an optical sensor and a signal processor. The instrument was calibrated using a yellow standard tile with Hunter L, a, b values of L = 77.33, a = -1.91, b = 20.94. A sample of semolina was placed in a cell normally used for near infrared analysis of flour in a Technicon 400 Infra Analyzer. This cell fits in the opening of the optical sensor. The b value was converted to a yellow color score ranging from 1-14, with 14 being a deep yellow and the most desirable color. In this report, the semolina color score, reported as "Du" in the tables, is multiplied by a factor of 10.

Spaghetti Color - The spaghetti color scores also were measured in the Model D25M-9 colorimeter. The specimen area (2 in diameter) was covered with straight spaghetti strands and readings were taken against a black background with 0% reflectance. Color difference values (L%, a% and b%) were measured for all the spaghetti samples by the method of Walsh, Gilles and Shuey8/. A uniform chromaticity chart was used for determining spaghetti color scores.

MACRO Spaghetti Processing - Spaghetti was processed on a semi-commercial scale pasta extruder (DEMACO). The control as well as all samples was processed with the following extruding conditions.

Temperature	49.5°C
Rate	12 rpm
Absorption	32.5%
Vacuum	18 in Hg

These were the optimum conditions for processing spaghetti.

8/ Walsh, D. E., Gilles, K. A. and Shuey, W. C. Color determination of spaghetti by the tristimulus method. Cereal Chem. 46:7 (1969).

To process the spaghetti, a 1000 g batch was premixed by slowly adding the water and mixing at a slow speed for approximately 30 seconds and high speed for 10 seconds. Then the remainder of the water was added at slow speed in a Hobart C-100-T mixer equipped with a pastry knife agitator. After all of the water had been added, the semolina and water were blended at high speed for 30 seconds; the mixer was stopped to scrape down the sides of the bowl, and the blending continued for 90 seconds more to complete the premix stage. The premixed pasta was then transferred to the vacuum mixer of the press and extruded through an 84-strand 0.043 in teflon spaghetti die. A jacketed extension tube (9¼" long x 1-3/4" inside diameter) was attached to the semi-commercial pasta extruder to allow more time for hydration of the semolina and minimize the number of white specks (unhydrated semolina) in the spaghetti. Extrusion temperature was controlled by a circulating water bath.

Spaghetti Drying - Spaghetti was dried in an experimental pasta dryer for an 18 hour cycle as described by Gilles, Sibbitt and Shuey9/. During the drying period, the humidity of the dryer was decreased linearly from 95 to 60% R.H. and the temperature was held constant at 40°C.

9/ Gilles, K. A., Sibbitt, L. D. and Shuey, W. C. Automatic laboratory dryer for macaroni products. Cereal Sci. Today 11:322 (1966).

Cooking Characteristics of Spaghetti

A. Cooking Procedure

Spaghetti (10 g) which had been broken into lengths of approximately 5 cm, was placed into 300 ml of boiling water in a 500 ml beaker. After 12 minutes cooking, the samples were washed thoroughly with distilled water in a Buchner funnel, allowed to drain for 2 minutes and then weighed to determine cooked weight. This procedure is the same as last year, but differs from previous years, when a 1% salt solution was used and the spaghetti was cooked for 10 minutes.

B. Firmness Score

Two strands of cooked spaghetti were placed on a plexiglass plate and sheared at a 90° angle with a special plexiglass tooth. A continuous recording of distance versus force was made by the instrument during the operation. An automatic integrator was used to calculate the area under the curve (g cm) which was the amount of work required to shear the cooked spaghetti. To measure firmness, the average of three integrator scores was used, and the average work to shear was used as a measure of spaghetti firmness.

Calculations were as follows:

$E = 0.0216 \times A$ (g cm)

A = Average integrator reading

E = Area of curve expressed as g cm (work)

The higher the value, the firmer the spaghetti. A value of approximately 7.00 appears to be preferred.

C. Residue

This is the weight of the solids remaining after the combined cooking and washing water was evaporated.

DISCUSSION

The following discussion represents some of the basic techniques and criteria used in the milling and cooking quality evaluation of durum wheat samples. Several testing factors are used to determine the overall quality characteristics or final evaluation of a particular sample including, in general, the kernel characteristics, milling performance and cooking performance.

Each evaluation factor can be important. A sample could be of sufficiently poor quality for a given factor to eliminate it from possible future testing. However, a sample submitted for the first time and found to show little promise should be tested again to establish if it has some good promise, or no promise. A sample which is consistently rated as little promise or no promise should be discarded.

Data presented in this report were processed by using the Statistical Analysis System (SAS Institute, Inc., SAS Circle, Box 8000, Cary, NC 27511). The program developed from this system allows flexibility within the quality grading factors. This should allow us to relate more directly to industry and consumer requirements.10/

In this evaluation system 11 dependent variables are used. These are test weight, 1000 kernel weight, percent small kernels, wheat protein, total extraction, semolina extraction, dust color, speck count, semolina protein, spaghetti visual color score and spaghetti firmness score. Five additional variables are measured and included in the tables for the reader's use and information but are not used in the computerized evaluation of the samples. These are percent large kernels, mixograph score, semolina mineral, falling number and cooking residue.

After computing an average of each of the 11 variables for the standards from a station or nursery, the computer subtracts established values from each of the standard averages to determine major (MJ) and minor (MI) faulting limits. There are two exceptions where precise values have been assigned, which are independent of the station standards. The first exception is wheat protein, where percentages below 11.5% will be classified as MJ faults, and percentages between 11.5% - 12.5% will be MI faults (14% m.b.). The second exception is semolina protein, where percentages below 11.0% are classified as MJ faults, and percentages between 11.0 and 11.5% are classified as MI faults (14% m.b.). Hence, the wheat and semolina protein faulting values remain the same for all stations and nurseries.

10/ Nolte, L.L., Youngs, V.L., Crawford, R.D. and Kunerth, W.H. 1985. Computer program evaluation of hard red spring wheat. Cereal Foods World 30:227-229.

SELECTION OF STANDARDS

Whenever possible, the standards selected were named varieties grown at each location or in each nursery. In the tables of data, the varieties used as standards are identified by an "s" in the second column. At the bottom of each table are cited "average of standards". Quality deviation from these values determine the major and minor faults (note preceding paragraph). In nurseries where breeders did not grow named varieties, standard quality data were obtained from the 1985 North Dakota standard ('Vic'), which was processed separately with each nursery. This standard was grown in North Dakota, not at the particular nursery location. Other deviations are footnoted in the tables.

HOW SAMPLES ARE SCORED

Each sample is assigned an evaluation score of 4. Major and minor faults determined from the data by the computer will reduce this score, depending upon the quality factor being faulted. The effects of the different quality faults are shown in the table which follows:

DURUM PROGRAM FAULTING AND SCORING VALUES

Variable	Range[a]		Effect on Evaluation Score[b]	
	Minor fault	Major fault	Minor fault	Major fault
Test Wt. (lb/bu)	-2.2	-3.1	-	-1
1000 KWT (g)	-2.1	-5.1	-	-1
Small Kernels (%)	+5	+10	-	-1
Wheat Prot. (%)	12.5	11.5	-1	-2
Tot. Ext. (%)	-2.5	-3.5	-1	-2
Semo. Ext.(%)	-3.0	-4.0	-1	-2
Dust color	-10	-15	-2	-3
Specks/10 sq. in.	+10	+15	-	-1
Semo. Prot. (%)	11.5	11.0	-1	-2
Visual Spag. color	-1.0	-1.5	-2	-3
Firmness (g cm)	-1.5	-2.25	-1	-2

[a] Wheat and semolina protein percents are fixed lower limits for faults. All other values represent the deviation from the average of the standards required to warrant a minor or major fault.

[b] These values are subtracted from a beginning score of 4.

EXPERIMENTAL RESULTS - 1985 CROP

The results are tabulated and presented in the following order: Tables 1-7, Uniform Regional Nursery; Table 8, Western Durum Nursery; Tables 9-10, Field Plot Nursery; Table 11, Preliminary Nursery; Tables 12-21, Advanced Nursery.

UNIFORM REGIONAL NURSERY

Two hundred twelve samples were received from seven stations and four states. Thirty samples were received from six stations, and thirty-two samples were received from one station. Ten of these samples were named varieties from six station and thirteen named varieties from one station. The remainder were experimental lines. The word descriptions of these numerical scores are as follows: 1-1.4, no promise; 1.5-2.4, little promise; 2.5-3.4, some promise; 3.5-4.0, good promise. The discussion which follows is based on averaged data from the seven stations.

Cando (3.1 - 29/13)11/ (3 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - Test weight, 1000 KWT, wheat protein, small kernels.

Milling Performance - Semolina extraction.

Crosby (3.5 - 14/3)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Satisfactory.

Laker (2.6 - 15/4)(2 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Dust color, semolina extraction.

11/ (Average General Evaluation - Number of Total Deficiencies/Major Deficiencies)

Lloyd (3.4 - 19/7)(3 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - Test weight, small kernels, wheat protein.

Milling Performance - Semolina extraction.

Medora (3.9 - 5/0)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Satisfactory.

Mindum (1.4 - 34/15)(3 years) - No promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Dust color.

Monroe (3.8 - 10/1)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein, 1000 KWT, test weight.

Milling Performance - Satisfactory.

Rugby (3.8 - 7/1)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Satisfactory.

Vic (3.9 - 3/1)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Small kernels, wheat protein.

Milling Performance - Satisfactory.

Ward (3.8 - 6/0)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein, small kernels.

Milling Performance - Satisfactory.

D7925 (3.6 - 5/3)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Dust color.

D8012 (3.9 - 5/0)(2 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein, 1000 KWT.

Milling Performance - Satisfactory.

D8016 (3.6 - 9/3)(2 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - 1000 KWT, small kernels, test weight, wheat protein.

Milling Performance - Semolina extraction.

D8019 (3.4 - 4/0)(2 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - Satisfactory.

Milling Performance - Dust color.

D8172 (3.6 - 5/1)(1 year) - Good promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, small kernels, wheat protein.

Milling Performance - Satisfactory.

D8191 (3.6 - 3/0)(1 year) - Good promise.

Faults (1985 crop)

Kernel Characteristics - Wheat protein.

Milling Performance - Satisfactory.

D8193 (3.7 - 2/0)(1 year) - Good promise.

Faults (1985 crop)

Kernel Characteristics - Wheat protein.

Milling Performance - Satisfactory.

D8194 (4.0 - 2/0)(1 year) - Good promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT.

Milling Performance - Satisfactory.

D79103 (3.6 - 5/3)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein.

Milling Performance - Semolina extraction.

D79104 (3.7 - 16/5)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein, 1000 KWT, small kernels.

Milling Performance - Semolina extraction.

D79168 (3.4 - 13/6)(3 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - Wheat protein, 1000 KWT.

Milling Performance - Semolina extraction.

D79209 (3.5 - 21/5)(3 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - 1000 KWT, small kernels, wheat protein.

Milling Performance - Semolina extraction.

D81114 (3.3 - 6/1)(1 year) - Some promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, wheat protein.

Milling Performance - Semolina extraction.

D81151 (3.0 - 10/3)(1 year) - Some promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, test weight, small kernels, wheat protein.

Milling Performance - Semolina extraction.

D81154 (3.6 - 7/1)(1 year) - Good promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, small kernels, wheat protein.

Milling Performance - Semolina extraction.

D81183 (3.3 - 8/2)(1 year) - Some promise.

Faults (1985 crop)

Kernel Characteristics - Test weight, 1000 KWT, small kernels, wheat protein.

Milling Performance - Semolina extraction.

DT380 (3.3 - 8/2)(1 year) - Some promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, small kernels, test weight, wheat protein.

Milling Performance - Semolina extraction.

FA882268 (2.7 - 14/6)(1 year) - Some promise.

Faults (1985 crop)

Kernel Characteristics - 1000 KWT, small kernels, test weight, wheat protein.

Milling Performance - Semolina extraction.

NHD81466 (3.4 - 19/3)(2 years) - Some promise.

Faults (1985 crop only)

Kernel Characteristics - 1000 KWT, small kernels, wheat protein.

Milling Performance - Semolina extraction.

NHD81485 (3.9 - 1/0)(2 years) - Good promise.

Faults (1985 crop only)

Kernel Characteristics - Satisfactory

Milling Performance - Satisfactory.

Arcola (DT371) (3.5 - 15/5)(3 years) - Good promise.

(Grown at Williston, ND station only in 1985)

Faults - 1983 and 1984 crop, 7 stations each; 1985 one station only.

Kernel Characteristics - Test weight, 1000 KWT, small kernels.

Milling Performance - Semolina extraction.

Kyle (DT375) (3.7 - 8/2)(3 years) - Good promise.

(Grown at Williston, ND station only in 1985)

Faults - 1983 and 1984 crop, 7 stations each; 1985 one station only.

Kernel Characteristics - Test weight, 1000 KWT, small kernels.

Milling Performance - Semolina extraction.

Rolette (3.8 - 3/1)(3 years) - Good promise.

(Grown at Williston, ND station only in 1985)

Faults - 1983 and 1984 crop, 7 stations each; 1985 one station only.

Kernel Characteristics - 1000 KWT.

Milling Performance - Dust color.

WESTERN DURUM NURSERY

Royal Slope, Washington - Table 8

Twenty-one samples were received from this station. All analyses were done the same as for the Uniform Regional Nursery using our micro procedure. Lloyd and Modoc were used as the standards. Eleven samples showed good promise, some showed some promise, and three showed little promise. The average general score was 3.4.

FIELD PLOT NURSERY

Twenty-two samples were received from two stations in two states. All samples were milled, and the semolina was processed into spaghetti using the macro method.

Fargo, North Dakota - Table 9

Six named varieties were received from this station. With Vic as the standard, Vic and Ward showed good promise, Cando and Rugby showed some promise, and Crosby and Lloyd showed no promise. The average general score was 2.7.

Mesa, Arizona - Table 10

Sixteen samples were received from this station. With Aldura as the standard, two samples showed good promise, five showed some promise, three showed little promise and six showed no promise. The average score was 2.2.

PRELIMINARY NURSERY

Seventy samples were received from one station. All samples were milled using our micro procedure.

Davis, California, Experiment #524 - Table 11

Aldura and Modoc were used as the standards. Semolina extraction was the major faulting area. The average general evaluation score was 2.5.

ADVANCED NURSERY

A total of 269 samples were received from five stations in one state. 252 were milled, and the semolina was processed into spaghetti using the macro method. The remaining 17 samples were processed using our micro procedure.

Imperial Valley, California - Table 12

Ten samples were received from this station. Aldura, Mexicali 75 and Westbred 881 were used as standards. Westbred 881 showed some promise. The remaining samples showed no promise. The major faulting areas were wheat and semolina protein.

Delta, California - Table 13

Twenty-nine samples were received, and Mexicali was used as the standard. Two samples showed good promise, 5 showed some promise, 4 showed little promise, and 18 showed no promise. The major faulting areas were 1000 KWT and wheat and semolina protein. The average evaluation score was 1.7.

Kings County, California - Table 14

Twenty-nine samples were received in this set. Mexicali was used as the standard. P883-15 showed some promise. The remaining samples showed no promise. The major faulting areas were 1000 KWT and wheat and semolina protein.

El Centro, California, A Series - Table 15

Sixty-one samples were received in this series. Mexicali was used as the standard. Five samples showed good promise, 13 showed some promise, 8 showed little promise, and 35 showed no promise. The average evaluation was 1.8.

Imperial Valley, R Series - Table 16

Twenty-nine samples were received in this series. Mexicali was used as the standard. The major faulting areas in this series were 1000 KWT and wheat and semolina protein. The average evaluation score was 1.8.

Davis, California

Ninety-two samples were received from this station in five different Experiment Sets.

Experiment #520, Table 17

Twenty-eight samples were received from this set using Aldura, Mexicali and Modoc as the standards. The major faulting areas were wheat and semolina protein. The general evaluation score was 2.5.

Experiment #521, Table 18

Twenty-one samples were received from this set using Aldura and Modoc as the standards. The major faulting areas in this set were wheat and semolina protein, dust color and visual color. The average evaluation score was 1.2.

Experiment #522, Table 19

Twenty-nine samples were received from this Experiment using Aldura and Modoc as the standards. Nine samples in this set showed good promise, three showed some promise, five showed little promise, and twelve showed no promise. The general evaluation score was 2.3.

Experiment #523, Table 20

Fourteen samples were received from this set using Mexicali 75 as the standard. 1000 KWT and semolina extraction were the two major faulting areas. The average evaluation score was 1.5.

Experiment #573, Table 21

Seventeen samples were received from this experiment. All samples were milled using our micro procedure. Mexicali 75 was used as the standard. The major faulting area was 1000 KWT. Four samples showed good promise, seven showed some promise, five showed little promise, and only one showed no promise. The general evaluation score was 2.8.

EXPLANATION OF ABBREVIATIONS LISTED UNDER THE HEADINGS AND UNDER MINOR AND MAJOR DEFICIENCIES ON TABLES

MINOR AND MAJOR DEFICIENCIES ON COMPUTER PRINTOUT

S or STD = Standard
TW = Test Weight

1000 KWT or KW = 1000 Kernel Weight
LG = % Large Kernels
SM = % Small Kernels

WHT PRO or WP = Wheat Protein
TOT EXT or TX = Total Extraction (Semolina Plus Flour)
SEMO EXT or SX = Semolina Extraction
DUS or DU = Semolina Dust Color Score (High score is more desirable)

MX = Mixograph Score (The higher the number, the stronger the curve)
SPK or SK = Semolina Speck Count
SEMO MIN = Semolina Mineral

FALL NO = Semolina Falling Number Value (Values above 300 are desired)
SEMO PRO or SP = Semolina Protein

VI = Spaghetti Visual Color Score (The higher the score, the more desirable)
FIRM or FR = Cooked Spaghetti Firmness Score (Approx. 6.50 to 8.50 is the desirable range)

RES = Residue in Water of Cooked Spaghetti
VALU = Sample Evaluation Number (Example 4 = Good Promise)

TABLE 1 QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=MONTANA STATION=SIDNEY NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		55.7	26.4	0	35	18.9	43.0	75	6	4		MI				
CROSBY		54.6	30.4	0	22	18.6	51.2	80	6	4						
LAKER		58.2	32.6	0	13	16.8	54.8	75	8	4						
LLOYD		56.0	29.9	0	27	18.8	49.0	90	8	4						
MEDORA		55.5	26.9	0	25	19.4	49.5	85	8	4						
MINDUM		57.6	29.2	0	15	17.9	51.2	65	5	1						MJ
MONROE		55.5	33.2	1	7	18.2	52.4	80	8	4						
RUGBY	S	55.8	29.2	0	27	19.2	49.3	80	6	4						
VIC	S	56.2	29.0	0	76	19.0	43.1	85	8	3			MJ			
WARD	S	54.7	28.2	0	45	19.6	44.4	80	5	4						
D 7925		56.0	33.2	1	15	17.1	52.2	80	8	4						
D 8012		55.5	28.7	0	20	18.7	47.5	90	8	4						
D 8016		54.1	28.9	0	43	18.9	41.2	80	8	2					MJ	
D 8019		55.7	29.3	0	14	18.4	47.9	75	8	4						
D 8172		56.5	30.4	0	31	18.7	55.0	80	8	4						
D 8191		57.1	30.6	0	19	18.0	50.5	80	8	4						
D 8193		57.0	31.6	0	18	17.8	49.8	85	8	4						
D 8194		57.8	32.7	0	11	17.9	45.9	85	8	4						
D 79103		57.8	31.6	0	8	18.6	52.2	90	8	4						
D 79104		57.1	30.5	0	16	18.3	50.2	85	8	4						
D 79168		58.4	31.4	0	22	17.2	45.7	95	8	4						
D 79209		57.9	30.4	0	16	17.4	46.8	80	8	4						
D 81114		57.1	30.0	0	14	17.7	50.3	80	8	4						
D 81151		55.7	30.0	0	21	17.9	49.3	85	8	4						
D 81154		57.1	31.9	0	20	17.9	49.1	90	8	4						
D 81183		57.0	29.6	0	31	17.4	49.5	90	8	4						
DT 380		55.5	30.0	0	14	18.8	48.1	80	8	4						
FA 882268		54.4	26.1	0	57	18.9	40.0	80	8	2		MI	MI		MJ	
NHD 81466		58.2	33.3	0	25	16.7	52.9	85	8	4						
NHD 81485		56.8	31.0	0	21	18.4	47.1	95	8	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	55.6	28.8	49	19.3	45.6	82
MINOR FAULTING VALUES	53.4	26.7	54	12.5	42.6	72
MAJOR FAULTING VALUES	52.5	23.7	59	11.5	41.6	67

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 2 STATE=SOUTH DAKOTA STATION=SELBY NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		57.4	26.0	1	13	17.9	54.5	95	8	4		MI	MI			
CROSBY		58.1	28.1	4	6	18.3	57.3	85	6	4		MI				
LAKER		58.6	31.3	3	4	17.0	54.7	80	8	2						MI
LLOYD		56.6	29.6	2	10	17.8	52.3	95	8	4	MI		MI			
MEDORA		59.0	29.2	5	3	18.5	55.1	95	8	4						
MINDUM		59.2	30.2	2	6	18.2	54.7	70	6	1						MJ
MONROE		59.4	34.7	34	3	17.0	57.5	90	8	4						
RUGBY	S	59.0	29.2	5	4	18.3	54.5	90	6	4						
VIC	S	59.8	33.3	5	3	17.6	50.5	90	8	4						
WARD	S	59.7	29.8	6	3	18.2	55.3	95	6	4						
D 7925		59.0	31.1	15	3	17.6	55.1	85	8	4						
D 8012		57.8	29.4	6	4	17.7	57.1	100	8	4						
D 8016		55.7	25.8	2	10	18.9	55.3	90	8	3	MJ	MI	MI			
D 8019		57.6	28.7	2	6	19.1	55.1	80	8	2						MI
D 8172		57.4	27.7	1	13	18.6	58.4	85	8	4		MI	MI			
D 8191		58.4	29.4	6	5	17.8	55.6	85	8	4						
D 8193		59.2	29.5	3	5	17.7	57.1	95	8	4						
D 8194		59.7	30.6	6	4	17.2	53.7	95	8	4						
D 79103		61.0	36.4	23	1	17.1	59.0	95	8	4						
D 79104		59.8	30.4	6	3	17.8	56.0	90	8	4						
D 79168		59.8	30.1	2	8	17.4	59.3	100	8	4						
D 79209		58.6	27.9	1	10	17.0	59.2	90	8	4		MI	MI			
D 81114		59.2	29.1	2	6	17.4	55.8	95	8	4						
D 81151		55.2	26.2	1	14	19.0	55.9	95	8	2	MJ	MI	MJ			
D 81154		58.4	27.4	1	12	18.8	55.8	100	8	4		MI	MI			
D 81183		57.1	26.0	1	22	19.0	55.6	90	8	3	MI	MI	MJ			
DT 380		55.5	26.8	1	10	19.2	53.5	85	8	3	MJ	MI	MI			
FA 882268		56.2	24.6	1	14	18.6	54.8	90	8	1	MJ	MJ	MJ			
NHD 81466		59.4	28.5	1	10	16.6	57.7	90	8	4		MI	MI			
NHD 81485		60.2	30.3	6	4	17.6	58.0	100	8	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	59.5	30.8	3	18.0	53.4	92
MINOR FAULTING VALUES	57.3	28.7	8	12.5	50.4	82
MAJOR FAULTING VALUES	56.4	25.7	13	11.5	49.4	77

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 3 STATE=SOUTH DAKOTA STATION=DAY CO. NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		61.8	35.6	34	2	9.7	60.2	75	3	2				MJ		
CROSBY		62.6	34.0	29	1	11.5	58.6	75	4	2				MJ		
LAKER		62.7	43.1	76	1	11.9	59.3	75	7	3				MI		
LLOYD		60.8	35.6	20	2	11.7	55.8	85	7	3				MI		
MEDORA		61.1	34.2	19	1	12.2	57.0	85	6	3				MI		
MINDUM		60.8	33.9	17	1	14.8	57.9	80	8	4						
MONROE		60.6	37.0	38	1	11.8	58.4	85	7	3				MI		
RUGBY	S	61.3	32.8	28	1	11.5	57.4	80	4	2		MI		MJ		
VIC	S	62.4	38.6	40	1	11.7	60.1	80	6	3				MI		
WARD	S	61.1	34.6	20	2	12.2	57.5	85	4	3				MI		
D 7925		61.8	37.2	45	1	11.4	58.7	75	7	2				MJ		
D 8012		62.1	35.3	45	1	12.2	59.3	95	6	3				MI		
D 8016		61.1	34.0	11	1	12.8	58.1	85	7	4						
D 8019		63.5	35.5	8	1	13.1	58.9	70	4	2						MI
D 8172		62.6	36.0	7	1	11.5	63.5	80	5	2				MJ		
D 8191		61.6	35.6	24	2	12.0	58.3	85	6	3				MI		
D 8193		61.1	33.7	18	2	12.4	57.9	85	7	3				MI		
D 8194		61.9	34.2	13	2	12.7	56.0	90	7	4						
D 79103		62.4	38.3	73	1	10.5	58.4	80	4	2				MJ		
D 79104		62.6	35.5	39	1	11.4	56.9	85	5	2				MJ		
D 79168		63.5	37.5	26	1	10.7	58.3	95	5	2				MJ		
D 79209		62.4	36.2	17	1	10.5	58.1	80	4	2				MJ		
D 81114		62.4	33.2	9	1	12.2	56.5	90	7	3		MI		MI		
D 81151		60.2	31.9	8	3	12.6	54.4	90	5	3		MI			MI	
D 81154		62.2	34.6	7	2	12.5	56.7	95	7	3				MI		
D 81183		62.2	32.9	3	2	12.5	56.0	90	7	3		MI		MI		
DT 380		59.7	31.8	9	2	14.6	53.7	85	8	2		MI			MJ	
FA 882268		60.3	30.8	11	3	14.9	55.6	85	8	4		MI				
NHD 81466		62.7	33.1	5	2	13.2	55.5	90	8	4		MI				
NHD 81485		63.4	38.3	41	1	13.1	58.1	95	8	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	61.6	35.3	1	11.8	58.3	82
MINOR FAULTING VALUES	59.4	33.2	6	12.5	55.3	72
MAJOR FAULTING VALUES	58.5	30.2	11	11.5	54.3	67

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 4 STATE=MONTANA STATION=BOZEMAN NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		58.6	28.9	1	8	19.4	52.3	85	3	4						
CROSBY		58.1	28.5	1	11	20.4	54.8	80	4	4						
LAKER		60.3	33.1	2	4	19.1	53.2	80	8	4						
LLOYD		59.7	34.8	5	5	18.4	58.2	95	8	4						
MEDORA		59.2	29.9	1	4	20.5	53.4	80	8	4						
MINDUM		60.5	30.2	1	4	19.7	53.2	70	5	2						MI
MONROE		59.8	25.9	10	2	17.9	55.7	85	8	4		MI				
RUGBY	S	58.4	29.3	2	6	20.3	52.8	80	3	4						
VIC	S	59.5	32.8	2	3	19.3	53.7	85	7	4						
WARD	S	58.1	28.6	1	12	21.1	51.6	85	4	4			MI			
D 7925		58.4	31.8	2	6	19.6	56.1	70	8	2						MI
D 8012		59.2	29.9	3	5	20.0	54.8	95	8	4						
D 8016		57.9	30.6	1	6	20.4	56.3	85	8	4						
D 8019		58.7	31.1	2	3	19.9	50.9	80	8	4						
D 8172		58.9	30.0	1	9	20.8	55.8	75	8	4						
D 8191		59.0	29.8	1	7	20.3	52.1	85	8	4						
D 8193		58.1	28.4	1	10	20.4	52.3	80	8	4						
D 8194		60.0	28.7	1	8	20.0	53.0	80	8	4						
D 79103		59.2	32.3	4	3	18.7	55.8	80	5	4						
D79104		59.4	27.2	0	22	20.0	56.5	90	8	3		MI	MJ			
D 79168		59.4	31.2	2	4	18.5	55.8	90	7	4						
D 79209		58.2	28.7	1	9	18.5	54.2	80	8	4						
D 81114		58.9	28.5	2	9	19.3	54.2	85	8	4						
D 81151		58.4	27.5	1	11	20.7	55.3	85	7	4		MI				
D 81154		58.2	27.9	1	18	20.4	55.1	90	8	3		MI	MJ			
D 81183		58.7	29.6	2	6	19.1	53.2	90	8	4						
DT 380		58.4	29.2	2	7	20.0	53.2	80	8	4						
FA 882268		59.5	29.5	2	9	19.5	53.0	85	8	4						
NHD 81466		58.7	30.4	1	9	18.9	56.6	85	8	4						
NHD 81485		60.5	31.8	4	7	19.0	56.1	90	8	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	58.7	30.2	7	20.2	52.7	83
MINOR FAULTING VALUES	56.5	28.1	12	12.5	49.7	73
MAJOR FAULTING VALUES	55.6	25.1	17	11.5	48.7	68

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 5 STATE=MINNESTOA STATION=CROOKSTON NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		61.1	41.8	49	2	12.4	60.2	70	5	3		MI		MI		
CROSBY		61.0	40.8	42	3	13.6	60.7	75	5	4		MI				
LAKER		61.6	51.3	77	1	12.0	59.7	65	8	1				MI		MI
LLOYD		60.6	51.8	72	1	11.3	60.7	75	7	2				MJ		
MEDORA		61.1	44.6	67	2	13.7	59.6	80	7	4						
MINDUM		63.4	42.9	57	2	12.9	63.1	60	5	1						MJ
MONROE		59.4	49.0	73	2	13.4	60.4	75	7	4						
RUGBY	S	61.1	42.7	58	2	13.8	59.8	75	4	4						
VIC	S	61.3	47.4	70	2	13.3	60.8	80	8	4						
WARD	S	61.1	43.7	57	2	13.3	59.5	75	4	4						
D 7925		60.2	46.5	67	2	12.9	60.4	75	8	4						
D 8012		59.8	43.9	63	2	12.3	60.1	80	8	3				MI		
D 8016		59.7	44.2	52	3	12.9	59.8	80	8	4						
D 8019		60.2	44.6	63	2	14.0	58.6	75	8	4						
D 8172		62.4	44.8	41	2	12.1	61.9	70	7	3				MI		
D 8191		59.4	42.6	50	2	11.9	59.8	70	7	3				MI		
D 8193		59.4	43.5	61	2	12.4	58.9	75	6	3				MI		
D 8194		61.1	42.4	57	2	12.7	58.9	75	7	4		MI				
D 79103		61.1	50.5	78	2	12.3	61.4	75	7	3				MI		
D 79104		61.0	40.0	55	2	13.1	59.5	80	7	4		MI				
D 79168		62.1	46.3	62	2	11.5	61.3	85	7	2				MJ		
D 79209		60.6	42.2	43	2	12.1	60.0	70	6	3		MI		MI		
D 81114		61.1	42.4	59	2	12.0	60.2	75	6	3		MI		MI		
D 81151		60.3	43.1	63	2	12.0	59.1	80	5	3				MI		
D 81154		61.0	40.0	44	2	12.6	58.8	80	7	4		MI				
D 81183		61.0	40.7	39	3	11.6	59.1	75	6	3		MI		MI		
DT 380		60.8	42.0	54	2	13.5	59.5	75	6	4		MI				
FA 882268		60.0	39.7	62	3	11.9	59.0	75	7	3		MI		MI		
NHD 81466		62.7	43.5	54	2	11.3	59.8	70	5	2				MJ		
NHD 81485		61.0	46.1	69	2	13.2	57.4	85	7	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	61.2	44.6	2	13.5	60.0	77
MINOR FAULTING VALUES	59.0	42.5	7	12.5	57.0	67
MAJOR FAULTING VALUES	58.1	39.5	12	11.5	56.0	62

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 6 QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=MINNESTOA STATION=MORRIS NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
CANDO		62.7	38.9	31	5	12.5	54.0	80	4	1		MI		MI	MJ	
CROSBY		62.1	42.0	52	4	13.6	56.9	75	4	4						
LAKER		61.4	44.4	55	5	12.9	54.6	75	8	3					MI	
LLOYD		61.3	45.5	45	4	12.8	54.6	80	7	3					MI	
MEDORA		61.8	40.7	50	3	14.5	56.5	80	8	4						
MINDUM		64.5	41.3	53	3	12.4	60.1	65	3	1				MI		MI
MONROE		61.4	45.5	61	5	13.2	56.2	80	6	4						
RUGBY	S	61.9	42.4	53	3	14.0	57.3	75	4	4						
VIC	S	62.2	44.8	61	3	14.3	59.6	80	7	4						
WARD	S	61.6	41.2	45	5	13.4	57.8	75	3	4						
D 7925		61.1	46.5	57	4	14.1	58.5	75	8	4						
D 8012		61.3	40.3	51	4	12.8	57.9	85	6	4		MI				
D 8016		61.8	42.7	46	5	12.5	59.6	85	6	3				MI		
D 8019		62.4	45.2	59	3	13.6	58.0	75	7	4						
D 8172		62.9	41.8	35	5	12.8	57.9	75	6	4						
D 8191		61.6	42.2	50	3	12.5	60.7	75	6	3				MI		
D 8193		61.1	41.7	53	3	13.3	57.8	80	7	4						
D 8194		60.6	38.9	40	5	13.1	55.6	85	7	4		MI				
D 79103		62.4	46.9	71	2	13.4	58.7	80	7	4						
D 79104		63.0	40.7	49	3	13.1	59.4	85	6	4						
D 79168		62.7	39.2	30	4	13.2	59.3	85	7	4		MI				
D 79209		62.9	41.5	42	3	13.1	58.2	75	7	4						
D 81114		63.4	41.2	47	3	12.5	56.0	85	6	3				MI		
D 81151		61.4	41.2	52	5	12.5	57.9	80	4	3				MI		
D 81154		62.6	41.2	39	5	12.6	57.6	85	6	4						
D 81183		63.2	40.7	38	4	12.6	57.5	85	7	4						
DT 380		61.4	39.8	37	5	12.4	58.5	80	7	3		MI		MI		
FA 882268		58.1	32.8	13	9	13.4	55.7	80	8	2	MJ	MJ	MI			
NHD 81466		62.2	40.2	21	4	12.4	55.2	80	7	2		MI		MI	MI	
NHD 81485		62.9	43.1	53	3	13.1	57.3	90	7	4						

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	61.9	42.8	4	13.9	58.2	77
MINOR FAULTING VALUES	59.7	40.7	9	12.5	55.2	67
MAJOR FAULTING VALUES	58.8	37.7	14	11.5	54.2	62

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 7 STATE=NORTH DAKOTA STATION=WILLISTON NURSERY=UNIFORM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WF	SX	DU
ARCOLA		55.5	30.6	4	11	18.1	57.4	80	8	3	MJ					
CANDO		59.7	29.6	3	11	17.0	56.3	80	8	4						
CROSBY		57.3	29.0	2	13	17.8	55.3	75	8	4		MI				
KYLE		60.3	33.8	2	7	18.5	54.5	75	8	4						
LAKER		60.6	37.2	10	3	15.9	53.1	70	8	2						MI
LLOYD		60.8	32.1	3	7	16.5	53.1	85	8	4						
MEDORA		61.0	30.2	3	7	18.2	54.3	85	8	4						
MINDUM		60.2	30.3	3	12	17.8	52.4	60	8	1						MJ
MONROE		56.6	33.3	8	6	16.7	54.9	80	8	4	MI					
ROLETTE		59.4	33.2	4	6	17.8	54.4	75	5	4						
RUGBY	S	58.9	30.8	3	9	17.9	54.5	75	7	4						
VIC	S	59.7	33.0	5	11	17.4	56.6	85	8	4						
WARD	S	58.4	30.6	3	9	18.2	53.8	80	8	4						
FA 882268		58.6	29.0	3	12	16.3	51.4	80	8	3		MI			MI	
HD 81466		59.7	31.2	2	13	16.3	54.5	85	8	4						
HD 81485		59.7	31.9	5	13	17.0	52.8	90	8	4						
D 7925		57.9	33.8	3	7	16.7	54.5	80	8	4						
D 8012		58.4	31.0	7	7	17.0	53.3	95	8	4						
D 8016		57.9	30.4	3	10	17.1	52.2	85	8	4						
D 8019		58.6	33.9	7	5	18.0	54.1	70	8	2						MI
D 8172		58.7	30.3	1	15	17.1	57.4	75	8	4			MI			
D 8191		59.7	33.0	6	6	17.0	54.8	75	8	4						
D 8193		59.5	32.4	4	5	17.2	55.0	80	8	4						
D 8194		58.7	29.4	3	8	17.1	52.1	85	8	4						
D 79103		60.2	35.5	11	4	17.5	49.3	85	8	2					MJ	
D 79104		59.5	30.3	5	8	17.1	50.2	90	8	2					MJ	
D 79168		60.5	32.9	5	6	16.6	49.5	95	8	2					MJ	
D 79209		59.2	30.9	3	7	16.1	51.6	80	8	3					MI	
D 81114		59.5	30.3	4	8	16.7	48.8	80	8	2					MJ	
D 81151		58.4	29.2	3	12	17.5	47.7	85	8	2		MI			MJ	
D 81154		59.7	30.5	3	10	17.0	51.4	90	8	3					MI	
D 81183		59.7	29.9	2	8	16.5	48.1	85	8	2					MJ	

DEFICIENCIES	TW	KW	SM	WF	SX	DU
AVG OF STANDARDS	59.0	31.5	10	17.8	55.0	80
MINOR FAULTING VALUES	56.8	29.4	15	12.5	52.0	70
MAJOR FAULTING VALUES	55.9	26.4	20	11.5	51.0	65

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 8 STATE=WASHINGTON STATION=ROYAL SLOPE NURSERY=WESTERN DURUM

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WF	SX	DU
DUROX		62.7	54.1	78	1	12.8	58.4	85	6	4						
GRANDUR		63.7	57.3	87	1	13.2	61.7	75	4	4						
IRRIDUR		65.0	45.7	71	1	13.5	59.2	80	4	4						
LLOYD	S	65.0	47.6	69	1	12.5	60.6	65	5	3				MI		
MODOC	S	64.6	44.6	66	2	12.7	59.1	75	6	4						
SIGNDUR		63.4	52.1	80	1	14.1	59.1	75	3	4						
WAID		63.5	43.5	53	2	12.6	57.9	80	3	4		MI				
YAVAROS 79		65.1	52.1	77	1	12.1	59.3	65	4	3				MI		
D 79209		64.5	48.8	66	1	12.3	61.6	85	5	3				MI		
HD 810466		65.6	51.3	71	1	12.4	61.0	85	4	3				MI		
NK 790893		66.1	45.8	67	2	12.6	58.9	90	3	4						
T83-136		63.5	47.6	63	2	12.3	59.5	70	5	3				MI		
T83-138		64.6	50.5	72	1	12.6	59.7	85	3	4						
T83-140		65.1	51.8	72	1	12.3	60.6	85	7	3				MI		
T83-147		63.8	43.9	52	2	12.5	56.7	80	4	2		MI		MI		MI
T83-175		64.6	42.2	50	3	12.7	53.2	75	8	2		MI				MJ
T83-179		63.9	43.9	49	2	13.2	55.3	75	8	2		MI				MJ
TL 730471		64.3	53.2	75	1	12.4	59.3	90	4	3				MI		
WPB 881		64.0	55.6	84	1	14.3	60.7	85	8	4						
WPB 881-04		64.7	57.3	88	1	13.3	60.8	75	7	4						
WPB 881-92		63.8	57.3	88	1	14.4	60.5	85	7	4						

DEFICIENCIES	TW	KW	SM	WF	SX	DU
AVG OF STANDARDS	64.8	46.1	2	12.6	59.8	70
MINOR FAULTING VALUES	62.6	44.0	7	12.5	56.8	60
MAJOR FAULTING VALUES	61.7	41.0	12	11.5	55.8	55

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 9 QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=NORTH DAKOTA STATION=FARGO NURSERY=FIELD PLOT

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
CANDO		61.5	49.0	67	2	1.69	13.6	388	73.5	58.7	80	3	63	0.71	12.9	7.0	6.65	8.2	3								MJ		
CROSBY		61.6	49.5	71	2	1.85	14.7	385	72.3	57.5	75	3	63	0.72	13.7	6.0	8.21	6.6	1								MJ		MI
LLOYD		62.0	46.5	69	1	1.79	13.4	303	72.5	58.2	80	8	93	0.70	12.4	6.0	6.78	7.9	1								MJ		MI
RUGBY		61.2	43.1	67	2	1.88	15.0	400	73.4	58.0	80	4	80	0.73	14.2	7.5	7.13	6.7	3		MI						MJ		
WARD		61.1	48.5	77	1	1.82	15.7	364	72.7	57.7	80	7	53	0.74	14.8	7.5	7.32	6.9	4								MI		
VIC	S	60.8	45.5	71	2	1.83	14.4	391	74.0	58.4	80	4	43	0.70	13.6	7.0	7.08	6.6	4										

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	60.8	45.5	2	14.4	74.0	58.4	80	43	13.6	7.0	7.08
MINOR FAULTING VALUES	58.6	43.4	7	12.5	71.5	55.4	70	53	11.5	6.0	5.58
MAJOR FAULTING VALUES	57.7	40.4	12	11.5	70.5	54.4	65	58	11.0	5.5	4.83

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 10

QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=ARIZONA STATION=MESA NURSERY=FIELD PLOT

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA	S	62.0	43.5	42	3	1.52	14.2	400	78.6	62.7	90	4	43	0.68	12.9	8.5	7.04	7.2	4											
LLOYD		62.9	37.9	28	4	1.68	12.6	400	78.9	62.6	90	5	77	0.75	11.6	8.5	6.52	7.2	2		MJ						MJ			
MESAORIA		60.9	41.3	49	3	1.55	12.8	400	78.2	63.2	75	5	37	0.69	11.9	8.0	6.26	9.3	1		MI				MJ					
D-46		63.2	49.0	70	1	1.73	11.3	400	79.7	64.3	85	7	30	0.83	10.6	8.5	6.50	7.1	1				MJ					MJ		
P83-20		61.5	47.6	62	1	1.58	14.5	400	78.7	61.0	100	8	90	0.71	13.1	9.0	8.34	6.5	3								MJ			
P882-21		63.0	50.0	77	1	1.49	12.5	400	77.9	62.2	95	7	20	0.67	11.4	9.0	6.87	7.2	2				MI					MI		
P883-2		63.3	50.3	74	2	1.61	13.8	400	79.8	63.8	90	8	43	0.71	12.6	9.5	7.19	7.0	4											
P883-4		61.7	45.0	56	2	1.64	14.7	400	78.8	62.6	90	8	67	0.73	13.4	9.0	8.42	6.4	3								MJ			
W 4		64.1	47.4	72	2	1.69	14.3	400	77.5	61.2	70	8	50	0.74	13.1	7.5	8.29	6.9	1							MJ				MI
W 269		62.5	42.9	54	2	1.66	12.0	400	78.2	64.1	100	4	20	0.76	11.1	9.0	6.16	7.0	2				MI					MI		
W 511		64.5	48.3	70	1	1.56	11.9	400	79.4	64.3	80	6	63	0.71	10.9	7.0	6.24	7.2	1				MI			MI	MJ	MJ	MJ	
W 521		63.5	50.0	72	1	1.55	13.2	400	80.3	65.6	85	7	97	0.70	12.0	7.0	6.35	6.5	1								MJ		MJ	
W 596		63.9	49.3	70	1	1.60	13.8	400	79.3	64.0	85	8	77	0.66	12.4	8.0	7.52	6.9	3								MJ			
W 614		66.0	42.7	54	2	1.66	14.3	400	81.2	66.9	85	8	63	0.77	13.3	8.5	7.86	8.7	3								MJ			
W 623		59.8	42.0	60	1	1.65	14.7	400	79.1	62.6	90	5	99	0.78	14.0	8.5	7.65	6.7	3	MI							MJ			
W 625		64.4	45.8	67	2	1.53	11.8	400	80.9	65.4	75	4	53	0.72	10.7	7.5	7.19	6.4	1				MI			MJ	MI	MJ	MI	

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	62.0	43.5	3	14.2	78.6	62.7	90	43	12.9	8.5	7.04
MINOR FAULTING VALUES	59.8	41.4	8	12.5	76.1	59.7	80	53	11.5	7.5	5.54
MAJOR FAULTING VALUES	58.9	38.4	13	11.5	75.1	58.7	75	58	11.0	7.0	4.79

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 11 QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=CALIFORNIA STATION=DAVIS NURSERY=PRELIMINARY

VARIETY	STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
ALDURA	S	63.4	49.3	73	1	12.9	60.9	85	4	4						
MODOC	S	65.1	45.7	67	1	13.3	58.8	80	6	4						
YAVAROS		.	56.8	.	.	12.6	.	.	.	4						
524/2		65.3	48.5	79	1	14.1	59.2	80	3	4						
524/5		64.5	46.1	58	1	13.5	59.1	65	7	1						MJ
524/6		63.7	50.3	74	1	13.8	56.7	65	3	1					MI	MJ
524/7		64.3	48.3	81	1	13.2	55.3	65	6	1					MJ	MJ
524/9		65.3	50.5	75	1	13.3	58.7	70	6	2						MI
524/10		64.3	61.3	87	1	13.0	58.4	65	4	1						MJ
524/12		63.7	58.1	89	1	13.8	54.4	75	6	2					MJ	
524/15		63.7	52.4	86	1	13.9	54.7	85	5	2					MJ	
524/16		64.0	50.3	78	1	14.2	56.1	85	3	3					MI	
524/19		63.7	49.8	76	1	13.2	58.9	80	4	4						
524/20		63.8	48.8	84	1	13.3	57.1	90	6	4						
524/23		64.0	47.8	69	1	13.1	55.6	80	5	2					MJ	
524/24		64.8	42.9	55	1	13.4	56.2	80	4	3		MI			MI	
524/26		65.4	51.8	82	1	14.1	56.3	80	6	3					MI	
524/27		65.3	52.6	81	1	14.1	60.5	85	6	4						
524/28		64.5	50.5	80	1	14.0	56.6	90	3	3					MI	
524/30		64.8	55.6	87	1	13.1	57.8	70	4	2						MJ
524/31		63.2	50.8	81	1	13.9	55.9	70	7	1					MI	MI
524/32		63.5	54.9	86	1	13.5	57.6	85	5	4						
524/33		64.0	47.4	67	1	13.9	55.7	80	4	2					MJ	
524/36		63.5	46.1	79	1	13.6	55.0	75	5	2					MJ	
524/37		64.2	52.1	77	1	14.2	54.1	85	5	2					MJ	
524/38		65.9	42.9	59	1	13.3	57.2	90	5	4		MI				
524/39		64.8	44.4	69	1	13.7	60.4	85	3	4		MI				
524/40		65.0	43.9	62	1	14.5	57.2	80	4	4		MI				
524/41		64.3	50.5	73	1	13.9	55.7	75	4	2					MJ	
524/42		64.6	51.0	82	1	13.8	59.1	75	2	4						
524/44		64.3	48.1	65	1	14.1	55.6	80	2	2					MJ	
524/45		64.3	47.4	67	1	13.9	53.2	75	2	2					MJ	
524/47		65.0	43.7	69	1	13.3	58.8	80	2	4		MI				
524/48		65.3	43.7	63	2	13.3	56.7	95	2	3		MI			MI	
524/49		64.5	46.7	76	1	13.5	61.1	80	3	4						
524/50		64.6	47.4	67	1	13.5	56.3	90	3	3					MI	
524/51		64.3	46.7	64	1	13.8	57.5	90	3	4						
524/52		64.6	46.7	67	1	13.8	54.1	80	2	2					MJ	

TABLE 11 (CONT.)

QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=CALIFORNIA STATION=DAVIS NURSERY=PRELIMINARY

VARIETY STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WF	SX	DU
524/54	63.7	43.7	65	1	14.8	53.7	85	2	2		MI			MJ	
524/55	62.9	52.1	69	1	12.4	56.8	80	6	2				MI	MI	
524/57	64.5	50.0	70	1	13.1	56.3	70	3	1					MI	MI
524/58	63.5	45.8	59	1	12.4	56.7	80	4	2				MI	MI	
524/59	64.0	53.2	74	1	13.1	55.1	65	6	1					MJ	MJ
524/60	64.8	51.8	73	1	14.1	54.1	75	6	2					MJ	
524/64	63.2	53.5	81	1	13.7	55.1	85	5	2					MJ	
524/65	63.5	54.3	77	1	13.7	55.8	85	7	2					MJ	
524/66	64.0	49.0	77	1	12.8	54.8	90	4	2					MJ	
524/68	65.3	50.3	73	1	13.4	54.7	75	7	2					MJ	
524/69	65.3	52.6	80	2	13.2	54.4	65	7	1					MJ	MJ
524/70	65.3	49.8	65	2	12.1	57.3	70	3	1				MI		MI
524/71	65.3	47.6	65	2	13.5	56.7	85	7	3					MI	
524/72	63.8	51.3	71	1	13.0	57.9	70	4	2						MI
524/73	64.2	45.2	63	2	14.0	56.1	95	2	3		MI			MI	
524/76	65.0	45.0	66	3	13.6	55.7	70	3	1		MI			MJ	MI
524/78	63.8	47.6	67	3	14.5	54.4	80	6	2					MJ	
524/79	65.1	47.8	64	3	12.9	56.0	70	6	1					MI	MI
524/80	64.2	52.9	77	1	13.7	58.5	65	5	1						MJ
524/81	62.6	55.9	78	1	13.2	59.0	75	5	4						
524/82	64.0	56.2	81	1	12.9	59.1	80	3	4						
524/84	64.0	56.2	84	1	13.1	56.5	75	7	3					MI	
524/87	64.0	58.1	83	2	13.5	54.5	80	4	2					MJ	
524/88	65.0	52.6	81	2	13.9	58.2	75	6	4						
524/92	64.8	42.9	57	2	13.2	55.9	80	5	3		MI			MI	
524/98	65.1	50.0	63	2	13.6	56.3	75	5	3					MJ	
524/101	65.1	47.1	70	2	13.8	55.0	75	6	2					MJ	
524/103	64.5	44.8	61	3	14.0	54.7	80	5	2		MI			MJ	
524/105	64.8	48.1	70	2	13.1	53.7	70	4	1					MJ	MI
524/106	63.7	51.0	77	2	13.2	57.4	80	3	4						
524/107	63.8	48.3	67	3	13.4	55.3	80	3	2					MJ	
524/109	64.5	49.3	74	1	13.8	56.2	85	7	3					MI	

DEFICIENCIES	TW	KW	SM	WF	SX	DU
AVG OF STANDARDS	64.2	47.5	1	13.1	59.8	83
MINOR FAULTING VALUES	62.0	45.4	6	12.5	56.8	73
MAJOR FAULTING VALUES	61.1	42.4	11	11.5	55.8	68

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 12 STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSERY=ADVANCED

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA	S	64.4	43.9	51	1	1.69	11.8	400	82.4	65.7	90	4	57	0.72	10.7	8.0	6.00	7.3	1		MI		MI					MJ		
BRAMO D8		65.7	50.8	72	1	1.57	11.8	400	79.8	63.9	75	8	63	0.66	10.6	7.5	7.15	7.5	1				MI			MI		MJ	MI	
BRAMO D9		64.7	47.1	70	1	1.62	11.8	400	81.7	65.5	75	8	57	0.68	10.4	7.0	6.52	7.7	1				MI			MI		MJ	MJ	
BRAMO TOMCAT 1		65.5	51.3	79	1	1.59	11.2	400	81.1	65.3	70	7	43	0.68	10.1	7.5	5.25	8.1	1				MJ			MJ		MJ	MI	MI
GEM		66.4	55.9	84	1	1.54	11.1	400	81.2	65.4	65	4	53	0.65	9.9	6.0	6.52	8.4	1				MJ			MJ		MJ	MJ	
MALLARD'S'		65.5	51.5	81	1	1.64	11.1	400	80.1	64.3	80	7	50	0.73	10.0	9.0	6.98	8.5	1				MJ					MJ		
MEXICALI 75	S	63.9	48.5	76	1	1.69	11.8	400	81.3	66.1	80	7	63	0.65	10.6	8.0	6.57	7.4	1				MI					MJ		
ROKEL 'S'		64.2	44.2	62	2	1.66	11.3	400	80.9	65.2	80	7	63	0.68	10.1	8.0	6.22	7.8	1		MI		MJ					MJ		
WESTBRED 881	S	64.6	54.3	84	1	1.71	13.5	400	80.0	63.7	90	8	99	0.72	12.1	9.5	7.97	7.9	3								MJ			
YAVAROS		66.9	54.3	82	1	1.58	10.9	400	80.6	65.3	70	5	47	0.63	9.7	7.5	6.37	8.1	1				MJ			MJ		MJ	MI	

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	64.3	48.9	1	12.4	81.2	65.2	87	73	11.1	8.5	6.85
MINOR FAULTING VALUES	62.1	46.8	6	12.5	78.7	62.2	77	83	11.5	7.5	5.35
MAJOR FAULTING VALUES	61.2	43.8	11	11.5	77.7	61.2	72	88	11.0	7.0	4.60

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 13 STATE=CALIFORNIA STATION=DELTA AREA NURSERY=ADVANCED

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA		65.0	52.6	80	2	1.42	12.2	400	81.8	64.4	90	4	73	0.62	10.9	9.0	6.44	7.9	1		MJ		MI					MJ		
FRIGATE 'S'		65.1	53.8	86	1	1.41	12.7	400	81.8	62.6	85	5	50	0.60	12.0	8.0	6.03	6.5	3		MJ									
GEDIZ 1		65.4	54.9	82	2	1.41	12.4	400	80.3	62.4	80	3	47	0.58	11.2	8.0	6.16	8.1	2		MI		MI					MI		
LOON		64.7	53.8	77	2	1.34	13.0	400	80.8	61.6	65	5	70	0.60	11.7	6.0	7.43	6.7	1		MJ					MJ			MJ	
MALLARD 'S'		64.5	63.3	91	1	1.36	11.7	400	78.5	63.6	80	8	93	0.74	10.6	8.5	6.74	7.4	1				MI				MJ	MJ		
MEXICALI	S	63.6	59.9	88	2	1.38	12.3	400	79.1	63.8	80	7	70	0.65	11.3	7.5	6.83	7.9	2				MI					MI		
MODOC		66.3	52.6	83	1	1.56	13.1	400	79.3	61.3	80	7	60	0.65	12.0	9.0	6.98	7.0	3		MJ									
ROKEL 'S'		64.0	55.9	84	1	1.40	12.2	400	79.3	63.7	85	6	63	0.61	11.5	8.5	6.11	7.4	2		MI		MI					MI		
STIFFTAIL 3		65.1	61.7	89	1	1.30	11.5	400	80.0	63.8	75	3	43	0.55	10.7	7.5	6.35	7.1	1				MJ					MJ		
STIFFTAIL 4		65.5	60.2	91	1	1.28	12.6	400	81.8	65.4	75	7	50	0.59	11.3	8.5	6.70	8.0	3									MI		
WESTBRED 881		64.3	59.5	93	1	1.51	13.4	400	80.6	62.6	90	8	33	0.65	12.4	9.5	8.21	7.5	4											
YAVAROS		66.0	50.0	78	2	1.55	13.3	400	76.5	59.0	80	6	70	0.64	11.7	9.0	6.74	7.6	1		MJ			MI	MJ					
CD 3935		65.5	55.6	85	2	1.40	12.4	400	79.8	63.3	75	7	24	0.61	11.4	7.5	8.04	6.7	2		MI		MI					MI		
CD 4071		65.4	52.6	84	1	1.34	11.9	400	80.5	63.4	75	7	63	0.59	10.8	7.5	6.85	7.1	1		MJ		MI					MJ		
CD 8130		64.8	56.5	89	2	1.39	12.3	400	81.1	64.4	55	6	23	0.62	11.5	5.5	6.63	7.3	1		MI		MI				MJ	MI	MJ	
CD 14472		65.1	53.5	87	1	1.42	13.2	400	80.8	62.6	70	3	60	0.62	12.1	7.0	5.98	6.7	1		MJ						MI			
CD 25126		66.0	49.0	80	1	1.33	11.9	400	80.0	62.3	85	7	27	0.61	10.8	8.5	7.30	6.8	1		MJ		MI					MJ		
D8204		63.1	57.3	83	2	1.29	10.1	400	78.0	62.1	90	6	30	0.61	9.3	9.5	5.90	7.4	1		MI		MJ					MJ		
D8209		65.3	51.5	74	2	1.37	11.4	400	78.9	62.0	90	3	60	0.61	10.4	9.5	5.96	7.7	1		MJ		MJ					MJ		
L-0162		65.9	58.5	89	1	1.37	12.0	400	81.1	63.8	60	2	17	0.60	10.9	7.5	5.16	7.8	1				MI				MJ	MJ		MI
NK 79D893		66.6	46.3	70	1	1.47	12.2	400	80.0	63.0	95	3	53	0.66	11.0	9.0	6.48	7.5	1		MJ		MI					MJ		
P882-21		65.5	60.2	89	2	1.34	11.5	400	79.7	62.9	90	6	27	0.58	10.5	9.0	6.63	7.9	1				MJ					MJ		
P883-2		63.8	58.5	90	1	1.55	14.9	400	81.4	63.0	90	8	60	0.68	13.6	9.0	7.47	7.6	4											
P883-15		62.4	62.1	93	1	1.65	14.9	400	77.6	60.2	80	8	57	0.75	14.1	8.5	8.36	7.5	3						MI					
P883-22		64.1	54.1	87	1	1.49	13.7	400	79.0	61.9	90	8	70	0.64	12.8	9.5	7.73	7.9	3		MJ									
TL 75-409		64.4	48.3	64	2	1.34	12.3	400	80.6	63.0	90	5	43	0.60	11.1	9.5	6.65	6.7	1		MJ		MI					MI		
UC 639		64.1	54.3	82	1	1.44	12.4	400	81.3	64.4	65	5	50	0.61	11.5	6.0	6.57	7.4	1		MJ		MI				MJ	MI	MJ	
UC 640		64.6	59.9	89	1	1.35	11.6	400	80.3	64.5	85	3	47	0.61	10.8	8.5	6.24	7.5	1				MI					MJ		
UC 644		64.7	50.8	83	1	1.40	11.5	400	80.8	64.1	60	6	57	0.60	10.6	5.5	6.83	7.9	1		MJ		MJ				MJ	MJ	MJ	

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	63.6	59.9	2	12.3	79.1	63.8	80	70	11.3	7.5	6.83
MINOR FAULTING VALUES	61.4	57.8	7	12.5	76.6	60.8	70	80	11.5	6.5	5.33
MAJOR FAULTING VALUES	60.5	54.8	12	11.5	75.6	59.8	65	85	11.0	6.0	4.58

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 14 STATE=CALIFORNIA STATION=KINGS CO. NURSERY=ADVANCED

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA		64.7	50.5	78	1	1.38	11.8	400	82.2	65.7	90	3	67	0.59	10.6	8.5	5.40	7.7	1		MI		MI					MJ		
FRIGATE 'S'		65.4	52.9	80	2	1.41	11.6	400	81.2	65.5	85	3	40	0.59	10.4	8.0	5.85	7.2	1				MI					MJ		
GEDIZ 1		64.1	54.1	78	2	1.42	11.8	400	79.9	64.0	85	4	77	0.59	10.2	8.5	5.27	7.3	1				MI					MJ		
LOON		64.4	51.0	76	2	1.42	12.3	400	81.1	64.0	65	6	63	0.62	11.1	6.0	6.05	6.1	1		MI		MI			MJ		MI	MJ	
MALLARD 'S'		63.9	57.8	88	1	1.31	9.8	400	78.1	63.6	80	8	77	0.62	9.1	8.5	5.49	6.8	1				MJ					MJ		
MEXICALI	S	64.0	54.3	81	2	1.35	11.0	400	80.5	64.6	80	8	80	0.59	9.9	8.0	6.16	6.4	1				MJ					MJ		
MODOC		65.8	48.1	72	2	1.47	12.0	400	79.6	61.2	80	8	53	0.59	10.7	8.5	6.91	6.5	1		MJ		MI		MI			MJ		
ROKEL 'S'		63.9	50.8	76	2	1.42	11.5	400	79.0	64.2	85	6	50	0.60	10.3	8.5	6.33	6.6	1		MI		MJ					MJ		
STIFFTAIL 3		63.9	55.6	84	2	1.35	11.5	400	80.2	64.7	80	5	37	0.56	10.6	7.5	5.94	8.0	1				MJ					MJ		
STIFFTAIL 4		65.3	60.2	91	1	1.33	12.3	400	82.0	65.5	70	7	47	0.57	10.9	7.5	5.81	9.9	1				MI			MI		MJ		
WESTBRED 881		64.2	56.8	90	1	1.40	12.2	400	80.1	64.0	90	8	47	0.61	10.9	9.0	6.48	7.2	1				MI					MJ		
YAVAROS		66.0	47.8	75	1	1.46	11.5	400	79.1	61.7	80	6	47	0.60	10.3	8.5	5.88	9.6	1		MJ		MJ					MJ		
CD 3935		64.5	54.6	84	2	1.37	11.5	400	80.9	65.8	75	7	23	0.60	10.6	7.5	6.16	8.9	1				MJ					MJ		
CD 4071		64.1	47.1	68	3	1.42	12.0	400	80.8	65.1	75	8	40	0.60	10.7	7.5	5.81	7.6	1		MJ		MI					MJ		
CD 8130		62.9	51.8	69	2	1.45	11.9	400	81.2	65.2	60	7	47	0.60	10.8	6.0	6.50	8.2	1		MI		MI			MJ		MJ	MJ	
CD 14472		65.4	54.9	81	2	1.41	12.0	400	81.1	64.1	70	3	60	0.59	10.7	7.0	5.31	8.7	1				MI			MI		MJ	MI	
CD 25126		65.7	48.5	83	1	1.37	11.6	400	81.9	64.6	85	7	37	0.59	10.5	8.5	5.81	7.8	1		MJ		MI					MJ		
D8204		63.0	57.1	84	2	1.36	10.2	400	78.9	63.5	85	8	40	0.58	9.1	9.5	5.51	8.2	1				MJ					MJ		
D8209		64.8	48.1	72	1	1.37	10.3	400	79.5	63.3	85	5	43	0.59	9.3	9.0	5.31	8.0	1		MJ		MJ					MJ		
L-0162		65.0	54.9	83	1	1.39	11.7	400	81.0	65.6	65	4	70	0.60	10.7	7.0	5.55	6.7	1				MI			MJ		MJ	MI	
NK 79D893		66.6	44.6	74	2	1.46	10.8	400	80.0	63.1	95	5	37	0.59	9.9	9.5	5.96	6.8	1		MJ		MJ					MJ		
P882-21		65.4	57.8	91	1	1.36	10.8	400	81.2	65.4	95	7	50	0.56	9.7	9.0	6.31	6.8	1				MJ					MJ		
P883-2		64.1	51.0	78	1	1.46	12.4	400	81.8	65.8	95	8	60	0.65	10.9	9.5	7.17	6.8	1		MI		MI					MJ		
P883-15		62.4	57.8	90	1	1.59	13.2	400	78.8	62.5	80	7	99	0.73	12.3	9.0	8.29	5.9	3								MJ			
P883-22		63.9	51.5	80	2	1.45	12.1	400	79.5	62.4	90	8	50	0.60	11.0	9.5	7.99	6.2	1		MI		MI					MJ		
TL 75-409		63.7	47.8	65	2	1.38	11.5	400	80.6	64.0	85	5	73	0.59	10.3	9.0	6.39	6.6	1		MJ		MJ					MJ		
UC 639		64.4	50.8	79	1	1.43	11.0	400	81.5	66.0	65	7	40	0.63	10.2	7.5	6.59	6.3	1		MI		MJ			MJ		MJ		
UC 640		64.2	56.2	87	2	1.35	10.9	400	80.5	65.3	80	2	60	0.62	10.1	8.5	5.81	6.4	1				MJ					MJ		
UC 644		63.1	46.9	71	1	1.57	12.0	400	81.0	64.4	65	7	43	0.64	11.1	7.5	6.65	6.3	1		MJ		MI			MJ		MI		

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	64.0	54.3	2	11.0	80.5	64.6	80	80	9.9	8.0	6.16
MINOR FAULTING VALUES	61.8	52.2	7	12.5	78.0	61.6	70	90	11.5	7.0	4.66
MAJOR FAULTING VALUES	60.9	49.2	12	11.5	77.0	60.6	65	95	11.0	6.5	3.91

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

TABLE 15

QUALITY DATA OF DURUM SAMPLES 1985 CROP
STATE=CALIFORNIA STATION=EL CENTRO NURSERY=ADVANCED-A SERIES

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SF	VI	FR
ALDURA		64.8	42.9	42	3	1.66	12.1	400	81.1	64.0	90	4	40	0.67	11.1	8.0	6.35	5.8	1		MJ		MI				MI	MI		
LA DULCE		66.2	58.5	87	2	1.65	11.1	400	80.4	65.8	75	4	27	0.66	10.5	8.0	6.22	5.4	1				MJ					MJ		
MEXICALI 75	S	63.2	48.5	71	3	1.63	12.4	400	79.8	65.7	80	8	27	0.67	11.5	8.0	7.21	5.1	2				MI					MI		
MODOC		66.5	46.7	71	2	1.58	12.0	400	79.0	61.1	80	6	30	0.60	11.4	8.0	7.21	5.7	1				MI		MJ			MI		
TASSILI 77		67.1	54.6	81	2	1.49	11.6	400	81.7	66.4	65	6	40	0.63	10.5	7.5	6.16	6.4	1				MI			MJ	MI	MJ		
YAVAROS		66.6	52.9	78	1	1.48	11.2	400	80.6	64.2	75	5	50	0.59	10.1	7.5	6.18	6.1	1				MJ				MJ	MJ		
430/27		65.4	52.4	72	2	1.65	12.8	400	78.7	64.5	65	7	73	0.64	11.8	6.0	7.65	5.8	1							MJ	MJ			MJ
430/32		67.4	44.6	68	1	1.51	11.8	400	80.4	66.0	90	7	47	0.61	10.6	8.0	6.72	5.8	1		MI		MI				MJ	MJ		
430/41		65.5	45.2	55	3	1.55	12.0	400	79.9	64.6	85	5	37	0.64	11.3	8.0	6.22	5.7	2		MI		MI				MI	MI		
430/70018		65.0	41.2	18	5	1.61	12.1	400	79.7	63.5	80	2	70	0.66	11.2	8.0	7.24	5.8	1		MJ		MI				MJ	MI		
430/70210		64.2	38.5	19	3	1.62	13.3	400	79.4	63.1	70	7	47	0.62	12.3	7.5	7.26	6.0	1		MJ					MI	MJ			
432/38		65.1	42.6	40	4	1.62	11.9	400	80.5	65.7	80	7	33	0.67	10.9	7.5	7.08	6.7	1		MJ		MI					MJ		
432/44		67.0	47.4	74	3	1.53	11.9	400	79.4	64.3	60	7	57	0.67	10.7	7.5	6.93	6.2	1				MI			MJ	MJ	MJ		
432/70230		65.5	44.4	67	2	1.54	13.2	400	78.4	62.8	80	6	33	0.67	11.8	8.0	7.13	6.5	4		MI									
432/70260		64.5	37.3	21	4	1.81	13.8	400	80.2	63.0	75	8	27	0.72	13.0	7.5	7.30	6.4	3		MJ									
432/70302		65.2	49.0	76	2	1.64	12.8	400	80.4	64.2	85	7	43	0.62	11.7	9.0	7.11	5.8	3								MJ			
432/70314		65.7	48.5	67	1	1.62	12.7	400	79.5	64.2	70	3	27	0.64	11.5	7.0	5.62	5.9	1							MI		MI	MI	MI
432/70392		66.3	49.0	68	2	1.60	12.3	400	79.3	64.3	80	7	30	0.68	11.4	8.5	6.42	5.9	2				MI					MI		
432/70460		66.1	47.1	72	1	1.54	12.3	400	79.1	63.9	85	7	99	0.66	11.4	8.0	6.22	5.9	1				MI				MJ	MI		
432/70496		66.6	42.0	66	1	1.73	13.0	400	76.7	60.1	90	6	53	0.65	11.5	8.5	7.15	5.6	1		MJ			MI	MJ		MJ	MI		
432/70502		66.5	47.4	73	3	1.71	12.5	400	78.4	62.3	85	2	90	0.65	11.2	8.0	5.72	6.0	1				MI		MI		MJ	MI		
462/70080		63.5	42.9	56	3	1.54	13.1	400	79.8	64.8	70	5	43	0.70	12.3	7.0	5.85	6.2	1		MJ					MI	MJ			MI
462/70514		65.3	45.0	58	2	1.58	13.4	400	78.5	62.1	90	5	99	0.64	12.3	8.5	7.65	6.3	2		MI				MI		MJ			
462/70518		64.8	47.6	74	2	1.68	14.7	400	76.6	61.2	95	6	47	0.65	13.4	9.0	7.45	5.9	1					MI	MJ		MJ			
462/70534		64.6	47.6	74	2	1.63	13.5	400	78.2	62.7	90	5	37	0.67	12.5	8.5	6.52	5.5	3						MI		MI			
462/70542		64.2	46.3	69	3	1.62	12.9	400	79.2	64.3	85	8	47	0.69	11.8	9.0	6.91	5.8	3		MI						MJ			
462/70568		65.3	44.8	55	3	1.68	13.3	400	80.2	62.7	95	6	53	0.68	12.3	9.5	7.88	6.0	2		MI				MI		MJ			
462/70592		66.3	48.8	76	2	1.50	12.1	400	78.3	63.4	90	6	37	0.62	10.9	9.0	6.74	5.9	1				MI				MI	MJ		
462/70596		65.0	42.9	57	3	1.54	12.9	400	77.9	63.0	90	6	47	0.64	11.6	8.0	6.20	6.0	2		MJ						MJ			
462/70638		66.7	44.1	61	2	1.53	12.9	400	78.5	62.2	70	7	20	0.63	11.9	7.5	8.29	6.0	1		MI				MI	MI				
462/70656		65.4	42.0	53	4	1.65	13.5	400	80.4	62.8	80	7	37	0.65	12.4	8.5	7.43	5.4	3		MJ						MI			
462/70662		66.8	51.0	77	3	1.64	12.6	400	77.5	63.1	90	7	23	0.71	11.5	9.0	8.70	6.2	3									MI		
462/70672		66.0	50.8	82	2	1.61	13.8	400	77.3	61.8	70	8	53	0.72	12.7	7.5	9.18	5.2	1					MI	MI	MI	MJ			
462/70718		65.6	49.3	76	3	1.78	13.1	400	78.1	60.6	90	6	50	0.69	12.0	9.0	7.91	5.7	1						MJ		MJ			
462/70734		66.1	45.8	70	3	1.65	13.9	400	77.7	62.1	95	4	60	0.65	12.7	9.0	7.69	5.6	2		MI				MI		MJ			
462/70764		63.8	48.5	64	2	1.69	12.8	400	80.1	64.9	95	6	60	0.70	11.6	9.5	7.34	6.0	3								MJ			
462/70806		65.4	45.0	47	3	1.60	12.8	400	79.6	64.7	85	5	50	0.68	11.6	9.0	7.93	5.7	3		MI						MJ			
462/70868		65.6	44.8	68	1	1.70	13.8	400	78.6	62.8	95	4	47	0.66	12.5	9.5	8.10	6.0	3		MI						MJ			

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 15 (CONT.) STATE=CALIFORNIA STATION=EL CENTRO NURSERY=ADVANCED-A SERIES

VARIETY	STD TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
462/70872	65.7	43.9	52	2	1.72	13.6	400	76.7	60.2	90	4	53	0.69	12.3	9.0	8.62	6.1	1		MI			MI	MJ		MJ			
462/70880	66.0	45.2	66	2	1.64	13.8	400	75.3	59.4	95	6	37	0.66	12.8	9.0	7.28	6.5	1		MI			MJ	MJ		MI			
462/70888	64.8	45.2	70	2	1.78	14.8	400	77.7	61.9	90	3	50	0.71	13.8	9.0	7.00	5.8	2		MI				MI		MJ			
462/70906	65.1	46.3	70	2	1.71	13.0	400	77.0	61.9	95	2	57	0.69	11.9	9.0	7.28	6.4	1		MI			MI	MI		MJ			
462/70922	64.4	43.9	58	3	1.72	13.5	400	77.3	61.4	95	5	33	0.69	12.4	9.0	8.47	5.6	1		MI			MI	MJ					
462/70942	65.5	43.7	56	3	1.59	13.5	400	77.0	61.2	95	3	60	0.64	12.4	9.0	6.26	5.7	1		MI			MI	MJ		MJ			
462/70952	66.0	46.9	75	2	1.64	14.0	400	76.3	60.3	75	3	70	0.64	12.9	7.5	6.67	6.1	1					MJ	MJ		MJ			
462/70968	65.3	48.5	77	2	1.74	14.3	400	75.9	60.0	90	5	57	0.69	13.1	8.0	8.90	5.9	1					MJ	MJ		MJ			
462/70980	64.4	47.6	66	2	1.59	13.1	400	78.2	62.9	90	6	50	0.68	12.1	8.5	7.65	5.8	3								MJ			
462/71026	65.4	41.5	52	3	1.65	13.3	400	76.5	60.2	100	3	60	0.65	12.2	9.0	6.50	5.5	1		MJ			MI	MJ		MJ			
462/71030	65.9	43.9	63	2	1.64	13.3	400	77.1	60.5	90	4	43	0.64	12.0	9.0	7.00	5.5	1		MI			MI	MJ		MJ			
462/71042	63.6	44.1	49	2	1.63	13.2	400	79.2	63.9	90	6	53	0.71	12.3	9.0	8.23	5.0	3		MI						MJ			
462/71110	64.6	46.1	58	2	1.63	13.2	400	79.0	63.8	80	4	27	0.67	12.4	8.0	6.93	5.7	4		MI									
462/71134	65.4	51.5	80	2	1.56	13.1	400	80.0	63.8	90	8	43	0.72	12.2	8.5	7.32	6.2	3								MJ			
462/71180	66.3	50.0	81	2	1.64	12.9	400	79.2	62.9	90	5	40	0.67	11.9	8.5	8.21	5.8	4								MI			
462/71184	66.3	50.5	80	2	1.59	13.3	400	80.3	65.1	85	6	37	0.72	12.5	7.5	8.42	5.7	4								MI			
462/71218	66.4	49.0	78	1	1.64	13.7	400	78.1	62.1	85	6	37	0.69	12.6	8.0	7.62	5.9	3						MI		MI			
462/71330	64.9	45.2	51	3	1.62	13.1	400	77.5	63.6	90	7	80	0.69	12.2	8.5	8.12	5.5	3		MI						MJ			
462/71414	64.6	49.8	84	2	1.63	13.1	400	78.9	63.5	90	4	20	0.67	11.9	7.5	6.46	5.3	4											
462/71456	65.9	46.1	65	3	1.59	13.8	400	77.5	60.4	70	4	53	0.65	12.5	7.0	7.91	6.2	1		MI				MJ	MI	MJ		MI	
462/71526	62.9	56.5	88	2	1.71	13.9	400	77.0	61.9	85	8	47	0.74	12.8	8.5	7.60	6.0	1					MI	MI		MJ			
462/71556	65.6	48.3	69	3	1.67	14.4	400	76.7	60.3	80	7	40	0.64	13.2	8.0	8.10	5.7	1					MI	MJ		MI			
462/71560	66.0	52.6	76	2	1.69	13.0	400	75.7	60.1	85	6	50	0.65	12.0	7.0	7.19	5.6	1					MJ	MJ		MJ		MI	
462/72456	66.0	49.0	77	2	1.59	11.3	400	79.4	65.2	60	2	43	0.69	10.6	7.0	6.72	6.4	1				MJ			MJ	MJ	MJ	MJ	

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	63.2	48.5	3	12.4	79.8	65.7	80	27	11.5	8.0	7.21
MINOR FAULTING VALUES	61.0	46.4	8	12.5	77.3	62.7	70	37	11.5	7.0	5.71
MAJOR FAULTING VALUES	60.1	43.4	13	11.5	76.3	61.7	65	42	11.0	6.5	4.96

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 16 STATE=CALIFORNIA STATION=IMPERIAL VALLEY NURSERY=ADVANCED-R SERIES

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA		64.5	45.7	51	2	1.58	12.8	400	79.5	63.9	90	4	43	0.67	11.7	8.0	6.13	6.3	3		MJ									
FRIGATE 'S'		65.2	44.1	56	3	1.51	12.8	400	79.3	64.4	85	5	37	0.64	11.7	8.5	5.92	6.4	3		MJ									
GEDIZ 1		65.4	51.0	75	2	1.59	12.1	400	77.6	62.9	80	4	47	0.61	10.9	8.0	5.81	6.7	1				MI					MJ		
LOON		65.1	46.1	65	3	1.48	12.6	400	78.9	63.0	60	4	53	0.64	11.4	6.0	7.28	6.3	1		MI					MJ		MI	MJ	
MALLARD 'S'		65.5	53.8	82	2	1.61	11.8	400	79.0	65.2	80	8	63	0.69	10.6	8.5	7.41	6.5	1				MI					MJ		
MEXICALI	S	63.7	51.0	78	2	1.60	11.8	400	78.2	64.7	75	8	57	0.69	10.6	7.5	5.94	6.3	1				MI					MJ		
MODOC		66.7	47.1	70	2	1.67	13.0	400	77.4	60.8	80	7	70	0.64	11.4	7.5	6.83	6.0	2		MI				MI		MI	MI		
ROKEL 'S'		64.4	44.6	64	3	1.69	11.1	400	79.1	65.3	85	6	50	0.69	10.3	7.5	6.91	5.8	1		MJ		MJ					MJ		
STIFFTAIL 3		65.5	56.2	81	2	1.46	12.3	400	79.3	64.1	70	3	40	0.58	11.0	7.5	6.87	6.0	1				MI					MJ		
STIFFTAIL 4		65.5	54.6	79	2	1.50	12.6	400	80.2	64.0	70	7	30	0.63	11.4	7.5	6.80	5.3	3									MI		
YAVAROS		66.4	47.8	73	2	1.63	13.2	400	77.1	60.3	80	6	23	0.63	11.5	8.0	6.67	5.9	1		MI				MJ			MI		
WESTBRED 881		64.3	54.9	85	1	1.58	13.6	400	77.5	62.8	85	8	37	0.67	12.5	8.5	7.65	6.6	4											
CD 3935		65.0	48.1	59	3	1.53	12.3	400	79.5	65.2	75	7	57	0.66	11.2	7.0	8.32	6.2	2		MI		MI					MI		
CD 4071		64.3	44.4	47	4	1.56	12.8	400	79.8	64.8	70	7	47	0.66	11.7	6.0	7.80	6.5	1		MJ									MJ
CD 8130		64.0	48.5	48	2	1.66	12.5	400	78.9	65.3	60	6	47	0.67	11.3	5.5	6.52	5.9	1		MI		MI			MJ		MI	MJ	
CD 14472		65.5	51.3	77	2	1.57	12.7	400	78.9	64.5	70	3	53	0.66	11.5	7.0	6.13	5.7	3									MI		
CD 25126		66.7	44.4	67	2	1.54	12.2	400	79.4	64.6	90	7	53	0.65	10.8	7.0	6.67	6.5	1		MJ		MI					MJ		
D8204		64.1	51.8	76	2	1.53	11.1	400	78.5	65.2	85	7	60	0.63	9.7	8.5	5.62	6.5	1				MJ					MJ		
D8209		64.8	43.5	58	3	1.60	12.0	400	78.6	63.2	95	4	43	0.62	11.0	8.5	5.40	6.0	1		MJ		MI					MJ		
L-0162		65.9	53.5	81	2	1.50	12.1	400	79.0	64.5	60	3	50	0.62	10.7	6.0	5.27	5.6	1				MI			MJ		MJ	MJ	
NK 79D893		66.5	41.3	50	4	1.66	12.3	400	79.0	63.3	100	4	30	0.65	10.9	8.5	6.33	6.7	1		MJ		MI					MJ		
P882-21		66.2	54.1	82	2	1.54	11.4	400	80.7	65.4	90	5	53	0.60	10.1	8.5	6.33	7.3	1				MJ					MJ		
P883-2		65.0	46.9	70	2	1.60	13.2	400	77.5	63.0	95	8	23	0.63	11.8	9.5	7.65	6.2	4		MI									
P883-15		63.7	54.9	87	1	1.84	13.7	400	78.5	63.0	80	8	53	0.76	12.6	8.5	7.71	5.9	4											
P883-22		64.7	50.5	75	1	1.56	13.3	400	77.0	61.2	85	8	63	0.64	12.4	8.0	9.33	6.3	3						MI					
TL 75-409		63.3	40.0	35	6	1.57	12.7	400	81.0	64.1	90	4	57	0.64	11.5	8.5	7.56	6.3	2		MJ							MI		
UC 639		63.0	45.2	50	3	2.36	11.7	400	77.5	63.3	55	5	99	1.36	11.0	4.0	8.04	6.6	1		MJ		MI			MJ	MJ	MJ	MJ	
UC 640		64.7	52.6	83	2	1.59	12.3	400	78.1	64.1	80	3	17	0.67	11.3	8.5	5.29	5.8	2				MI					MI		
UC 644		63.8	44.4	54	2	1.68	12.3	400	78.7	63.8	60	5	37	0.67	11.3	6.0	6.72	6.5	1		MJ		MI			MJ		MI	MJ	

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	63.7	51.0	2	11.8	78.2	64.7	75	57	10.6	7.5	5.94
MINOR FAULTING VALUES	61.5	48.9	7	12.5	75.7	61.7	65	67	11.5	6.5	4.44
MAJOR FAULTING VALUES	60.6	45.9	12	11.5	74.7	60.7	60	72	11.0	6.0	3.69

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 17 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED - EXPERIMENT #520

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA	S	63.4	49.5	59	2	1.50	12.8	400	80.1	64.5	95	4	30	0.61	11.4	8.5	6.61	6.5	3									MI		
LA DULCE		64.5	50.3	67	2	1.55	13.0	400	78.3	62.2	95	3	43	0.62	11.7	9.0	5.83	6.0	4											
MEXICALI 75	S	62.1	52.1	77	1	1.56	11.8	400	79.3	64.5	85	5	37	0.62	10.7	9.0	6.72	6.0	1				MI					MJ		
MODOC	S	65.0	44.1	65	1	1.60	12.3	400	77.8	61.3	85	4	43	0.61	10.8	9.0	6.44	6.2	1		MI		MI					MJ		
WAHA 'S'		64.1	52.1	72	1	1.52	13.4	400	78.7	62.7	85	4	37	0.62	12.2	9.0	6.05	6.5	4											
YAVAROS		64.2	48.8	73	2	1.59	12.5	400	80.0	62.8	85	4	27	0.59	11.3	8.0	6.46	6.3	2				MI					MI		
520/ENT 2		64.6	55.2	73	2	1.47	12.4	400	80.0	64.2	80	5	43	0.59	11.2	8.5	6.72	6.0	2				MI					MI		
520/ENT 3		65.5	55.2	85	1	1.58	13.8	400	80.1	63.5	65	6	50	0.61	12.5	7.5	6.37	6.1	1							MJ	MI		MI	
520/ENT 9		64.6	53.5	80	1	1.44	12.1	400	79.3	64.6	80	4	27	0.59	11.6	9.5	6.46	6.4	3				MI							
520/ENT 17		64.2	45.2	59	1	1.57	12.6	400	79.2	63.0	75	6	33	0.61	11.6	8.0	7.28	6.8	2		MI						MI			
520/ENT 18		64.7	50.0	63	1	1.49	11.2	400	79.8	65.3	80	7	27	0.64	10.2	9.0	7.45	5.8	1				MJ					MJ		
520/ENT 19		65.3	49.5	78	1	1.54	12.9	400	77.6	63.4	65	7	30	0.66	11.4	8.0	7.02	6.6	1							MJ		MI		
520/ENT 24		64.0	49.5	62	1	1.60	12.6	400	78.6	62.8	80	2	17	0.61	11.4	9.0	5.25	7.0	3									MI		
520/ENT 26		64.1	47.4	70	1	1.48	12.7	400	78.9	63.7	85	4	50	0.64	11.5	8.5	7.28	6.8	3								MI	MI		
520/ENT 28		64.5	48.1	79	1	1.45	12.2	400	79.3	62.0	90	4	43	0.66	11.4	9.5	7.04	6.4	2				MI					MI		
520/ENT 29		64.6	45.5	54	2	1.59	12.8	400	78.3	60.9	100	5	40	0.62	11.6	9.5	7.43	6.4	4		MI									
520/ENT 31		64.9	47.6	60	1	1.52	12.4	400	78.8	62.6	95	4	27	0.61	11.3	8.5	6.35	6.1	2				MI					MI		
520/ENT 32		64.2	48.5	73	1	1.69	13.8	400	77.1	59.7	100	4	50	0.68	12.4	10.0	7.65	5.8	3						MI		MI			
520/ENT 36		64.2	54.3	80	1	1.44	11.9	400	78.9	63.5	95	4	73	0.66	10.9	9.5	6.85	6.6	1				MI				MJ	MJ		
520/ENT 43		65.5	51.5	80	1	1.63	12.9	400	79.8	63.1	100	3	40	0.66	11.5	9.5	6.74	6.3	3									MI		
520/ENT 46		64.4	46.5	73	1	1.58	13.1	400	77.4	61.4	100	3	30	0.62	11.7	10.0	7.56	5.8	4											
520/ENT 50		64.5	49.5	70	1	1.65	12.2	400	77.9	61.9	105	2	53	0.67	11.0	9.5	6.16	6.9	1				MI				MJ	MJ		
520/ENT 51		63.6	46.7	73	1	1.57	13.1	400	76.8	59.8	100	4	47	0.64	11.6	9.5	6.31	6.7	3						MI		MI			
520/ENT 53		65.1	45.8	72	1	1.63	13.0	400	77.6	60.6	80	3	77	0.70	11.6	8.5	5.00	7.0	2		MI						MJ			MI
520/ENT 55		63.9	51.8	78	1	1.54	13.0	400	78.8	62.3	90	4	43	0.66	11.6	9.5	7.54	6.0	4											
520/ENT 60		63.5	59.2	89	1	1.49	12.8	400	78.9	62.7	95	6	43	0.67	11.5	9.0	7.34	5.9	3									MI		
520/ENT 62		65.1	51.0	80	1	1.48	12.7	400	79.2	63.6	95	5	40	0.68	11.6	8.5	7.26	5.9	4											
520/ENT 64		64.1	50.8	68	1	1.51	12.1	400	78.0	62.6	95	5	37	0.63	11.2	8.5	6.85	6.2	2				MI					MI		

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	63.5	48.6	1	12.3	79.1	63.4	88	37	11.0	8.8	6.59
MINOR FAULTING VALUES	61.3	46.5	6	12.5	76.6	60.4	78	47	11.5	7.8	5.09
MAJOR FAULTING VALUES	60.4	43.5	11	11.5	75.6	59.4	73	52	11.0	7.3	4.34

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 18 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED - EXPERIMENT #521

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA	S	63.4	51.0	62	1	1.53	12.6	400	80.1	64.9	100	4	37	0.69	11.6	8.5	6.52	6.1	4											
MODOC	S	65.0	43.3	52	2	1.65	12.2	400	79.5	62.2	90	5	47	0.64	11.0	9.0	6.91	6.3	1		MI		MI					MJ		
521/ENT 4		64.6	51.3	72	1	1.61	12.8	400	78.9	63.5	80	6	47	0.64	11.5	8.5	6.87	6.8	1							MJ		MI		
521/ENT 5		63.7	49.3	57	3	1.56	11.9	400	79.8	64.0	80	4	37	0.67	10.8	8.0	6.48	6.8	1				MI			MJ		MJ		
521/ENT 8		63.9	43.7	50	2	1.61	11.8	400	79.5	63.2	75	3	20	0.67	10.4	8.0	5.38	6.7	1		MI		MI			MJ		MJ		
521/ENT 13		64.2	47.8	63	1	1.56	13.3	400	77.9	62.0	80	4	27	0.65	12.1	7.0	6.87	6.2	1							MJ				MJ
521/ENT 17		65.6	59.5	88	1	1.49	13.0	400	80.4	66.0	70	3	30	0.57	11.8	6.0	6.16	6.2	1							MJ				MJ
521/ENT 18		63.4	51.8	69	2	1.55	12.9	400	79.7	62.9	65	7	13	0.69	11.7	7.5	7.00	6.5	1							MJ				MI
521/ENT 19		63.4	52.4	66	2	1.57	12.0	400	77.6	62.5	90	6	30	0.66	11.1	9.0	7.11	7.0	2				MI					MI		
521/ENT 22		63.3	54.1	76	1	1.49	12.2	400	79.8	63.8	70	5	13	0.65	11.2	7.5	7.84	6.2	1				MI			MJ		MI	MI	
521/ENT 30		63.5	54.9	86	1	1.55	12.1	400	79.6	62.8	75	5	27	0.67	11.0	7.5	7.11	7.5	1				MI			MJ		MJ	MI	
521/ENT 31		62.8	44.6	54	2	1.67	13.2	400	79.1	62.3	80	3	47	0.69	11.9	8.5	6.18	6.6	1		MI					MJ				
521/ENT 32		64.5	46.5	72	1	1.68	14.1	400	77.0	59.7	90	6	37	0.67	12.6	8.5	8.06	6.2	2					MI	MI					
521/ENT 33		63.3	48.3	65	1	1.66	12.8	400	77.9	61.3	85	4	43	0.66	11.5	8.5	5.90	7.3	1							MI		MI		
521/ENT 36		64.0	53.5	81	1	1.48	12.5	400	78.9	62.9	75	4	27	0.63	11.2	7.5	6.52	7.3	1				MI			MJ		MI	MI	
521/ENT 39		64.7	54.6	72	1	1.48	12.3	400	78.4	62.3	80	4	23	0.60	11.2	8.0	6.93	7.1	1				MI			MJ		MI		
521/ENT 41		63.1	55.2	86	1	1.48	11.8	400	77.6	60.8	75	4	20	0.61	10.6	8.0	7.30	7.1	1				MI			MJ		MJ		
521/ENT 42		62.1	58.1	82	1	1.55	11.9	400	78.6	63.4	75	7	17	0.67	10.8	7.5	8.21	7.1	1				MI			MJ		MJ	MI	
521/ENT 43		64.0	53.8	77	1	1.48	12.2	400	79.3	64.2	75	4	23	0.61	10.9	7.5	8.23	7.1	1				MI			MJ		MJ	MI	
521/ENT 46		64.1	51.8	75	1	1.53	13.1	400	77.1	61.3	85	5	37	0.65	11.9	7.5	8.25	6.8	1					MI		MI				MI
521/ENT 47		63.4	59.9	84	1	1.63	13.4	400	77.9	62.4	65	5	17	0.68	11.8	7.5	6.80	6.9	1							MJ				MI

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	64.2	47.1	2	12.4	79.8	63.5	95	42	11.3	8.8	6.71
MINOR FAULTING VALUES	62.0	45.0	7	12.5	77.3	60.5	85	52	11.5	7.8	5.21
MAJOR FAULTING VALUES	61.1	42.0	12	11.5	76.3	59.5	80	57	11.0	7.3	4.46

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 19 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED - EXPERIMENT #522

VARIETY	STD	TW	1000 KWT	% LG	% SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
ALDURA	S	63.6	48.1	68	1	1.49	13.1	400	78.3	62.2	95	3	47	0.64	11.8	9.0	6.13	6.2	4											
MODOC	S	65.1	45.0	65	1	1.57	12.7	400	77.0	60.0	85	4	30	0.62	11.2	9.0	7.37	6.3	3								MI			
522/ENT 1		64.3	48.3	71	1	1.43	12.1	400	76.9	62.1	80	4	20	0.60	11.1	9.0	6.54	6.8	1				MI			MI		MI		
522/ENT 3		63.4	51.3	79	1	1.44	13.4	400	78.1	62.3	65	4	23	0.58	12.1	7.0	6.42	6.4	1							MJ			MJ	
522/ENT 4		64.0	50.8	79	1	1.47	13.5	400	77.5	61.6	75	4	23	0.60	12.3	7.5	7.56	5.9	1							MJ			MJ	
522/ENT 5		64.2	47.6	74	1	1.54	13.0	400	78.2	62.8	85	3	23	0.61	12.0	8.5	7.00	4.2	4											
522/ENT 6		64.6	48.8	85	1	1.45	13.8	400	76.4	62.2	70	4	77	0.61	12.3	7.0	7.52	5.9	1							MJ	MJ		MJ	
522/ENT 8		62.5	50.3	88	1	1.49	12.5	400	76.9	61.5	85	5	50	0.65	11.4	7.5	7.13	5.3	1				MI				MI	MI	MJ	
522/ENT 9		64.3	46.5	76	1	1.50	13.3	400	78.8	62.9	70	6	20	0.64	11.9	7.5	7.39	5.9	1							MJ			MJ	
522/ENT 13		64.6	48.1	78	1	1.43	12.5	400	76.7	60.8	80	6	27	0.62	11.0	8.0	6.93	6.7	1				MI			MI		MJ	MI	
522/ENT 17		63.3	46.1	71	1	1.42	12.8	400	78.9	63.1	100	4	47	0.58	11.4	9.5	6.63	6.3	3									MI		
522/ENT 23		63.6	43.9	69	1	1.60	14.2	400	76.3	59.2	85	4	43	0.62	12.5	9.0	7.37	5.9	4		MI									
522/ENT 24		64.2	47.1	72	1	1.46	13.7	400	78.5	62.4	85	3	33	0.59	12.2	8.0	6.59	6.9	2										MI	
522/ENT 25		63.0	44.8	68	1	1.56	14.4	400	76.7	60.3	80	5	43	0.64	13.0	8.0	7.95	5.5	1							MI			MI	
522/ENT 26		63.8	47.1	66	1	1.45	14.1	400	79.2	64.3	75	3	37	0.63	12.8	7.5	6.74	6.0	1							MJ			MJ	
522/ENT 27		64.8	43.7	60	1	1.50	13.3	400	78.0	61.8	85	3	37	0.59	11.9	8.5	5.42	6.2	4		MI									
522/ENT 30		64.0	41.2	48	1	1.60	13.9	400	76.5	58.9	80	5	43	0.66	12.7	8.5	8.66	5.4	1		MJ					MI				
522/ENT 31		64.8	40.5	52	2	1.58	13.8	400	76.5	58.8	85	5	40	0.66	12.3	9.0	8.38	5.8	3		MJ									
522/ENT 32		63.0	43.5	58	2	1.57	14.3	400	76.9	59.5	95	4	50	0.64	13.0	9.0	7.93	5.2	4		MI						MI			
522/ENT 33		64.4	44.8	54	2	1.51	14.0	400	76.2	59.6	85	5	33	0.65	12.7	9.0	8.70	5.9	4											
522/ENT 34		63.8	45.7	62	1	1.47	13.5	400	77.0	60.2	90	6	33	0.62	12.3	9.0	7.52	5.6	4											
522/ENT 35		63.1	44.2	69	1	1.47	12.9	400	77.5	62.4	95	6	20	0.61	11.6	9.0	7.65	5.8	4		MI									
522/ENT 36		63.1	46.5	68	1	1.50	12.5	400	77.8	61.2	110	7	37	0.65	11.1	9.5	6.80	6.4	2				MI					MI		
522/ENT 38		64.9	44.4	64	1	1.45	12.4	400	78.4	63.0	75	3	23	0.58	11.1	7.5	6.29	6.0	1		MI		MI			MJ		MI	MJ	
522/ENT 40		64.3	49.5	79	1	1.49	13.2	400	77.4	62.1	85	3	17	0.58	11.9	8.0	6.59	6.0	2										MI	
522/ENT 41		63.6	40.8	54	2	1.62	14.0	400	76.2	59.2	80	3	27	0.65	12.5	8.0	6.54	6.8	1		MJ					MI			MI	
522/ENT 44		63.4	45.2	68	1	1.63	14.1	400	78.5	61.9	80	5	20	0.64	12.4	9.0	7.24	6.4	2							MI				
522/ENT 45		64.2	45.8	68	1	1.61	13.6	400	74.7	59.6	105	5	60	0.64	11.8	9.5	7.15	7.7	2					MI			MJ			
522/ENT 46		63.0	48.3	77	1	1.79	14.8	400	76.2	60.1	95	6	27	0.73	13.3	9.0	8.21	6.5	4											

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	64.3	46.5	1	12.9	77.6	61.1	90	39	11.5	9.0	6.75
MINOR FAULTING VALUES	62.1	44.4	6	12.5	75.1	58.1	80	49	11.5	8.0	5.25
MAJOR FAULTING VALUES	61.2	41.4	11	11.5	74.1	57.1	75	54	11.0	7.5	4.50

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 20 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED - EXPERIMENT #523

VARIETY	STD	TW	1000 KWT	% LG	SM	WHT ASH	WHT PRO	FALL NO	TOT EXT	SEMO EXT	DUS	MX	SPK	SEMO ASH	SEMO PRO	VI	FIRM	RES	*** VAL	DEFICIENCIES TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
MEXICALI 75	S	62.4	53.5	82	1	1.44	12.3	400	76.9	63.4	85	6	30	0.61	10.9	8.0	6.50	7.6	1				MI					MJ		
523/ENT 1		64.4	46.1	75	1	1.60	14.1	400	75.1	58.4	90	4	30	0.62	12.5	9.5	7.56	6.2	1		MJ				MJ					
523/ENT 3		63.4	47.8	72	1	1.53	12.7	400	77.3	61.2	90	3	30	0.60	11.2	9.5	6.89	7.2	2		MJ								MI	
523/ENT 5		63.9	51.8	80	1	1.54	13.8	400	79.1	63.1	75	5	43	0.60	12.2	7.5	7.73	5.1	2							MI	MI			
523/ENT 6		64.9	47.1	70	1	1.51	13.0	400	74.6	58.3	80	6	43	0.62	11.6	8.0	8.04	6.1	1		MJ				MJ		MI			
523/ENT 7		64.9	46.7	72	1	1.53	13.8	400	74.6	58.9	100	5	40	0.61	12.1	9.0	7.30	5.6	1		MJ				MJ		MI			
523/ENT 13		64.2	49.8	79	1	1.53	13.3	400	75.8	59.9	80	4	30	0.62	12.1	9.0	6.89	5.2	3		MI				MI					
523/ENT 15		65.4	52.1	83	1	1.47	13.1	400	75.3	60.9	70	6	33	0.61	11.5	7.5	7.15	5.4	1							MJ		MI		
523/ENT 16		65.2	48.3	84	1	1.42	13.0	400	75.6	60.1	75	5	30	0.57	11.3	7.5	6.52	5.5	1		MJ				MI	MI		MI		
523/ENT 17		64.7	45.5	72	1	1.54	14.4	400	74.3	58.4	80	4	23	0.60	13.3	7.5	7.52	5.1	1		MJ			MI	MJ					
523/ENT 20		64.2	53.8	90	1	1.57	14.3	400	75.1	60.1	85	6	20	0.64	12.8	8.5	7.91	5.1	3						MI					
523/ENT 22		65.4	44.2	62	1	1.44	13.1	400	75.2	60.0	85	5	37	0.60	11.6	9.0	8.19	5.2	2		MJ				MI					
523/ENT 24		63.3	50.3	82	1	1.43	13.5	400	74.3	58.2	95	8	17	0.60	12.2	9.5	8.38	4.9	1		MI			MI	MJ					
523/ENT 25		64.5	48.3	83	1	1.54	13.6	400	74.3	58.4	90	5	43	0.62	12.3	9.0	8.79	4.9	1		MJ			MI	MJ		MI			

DEFICIENCIES	TW	KW	SM	WP	TX	SX	DU	SK	SP	VI	FR
AVG OF STANDARDS	62.4	53.5	1	12.3	76.9	63.4	85	30	10.9	8.0	6.50
MINOR FAULTING VALUES	60.2	51.4	6	12.5	74.4	60.4	75	40	11.5	7.0	5.00
MAJOR FAULTING VALUES	59.3	48.4	11	11.5	73.4	59.4	70	45	11.0	6.5	4.25

**EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE

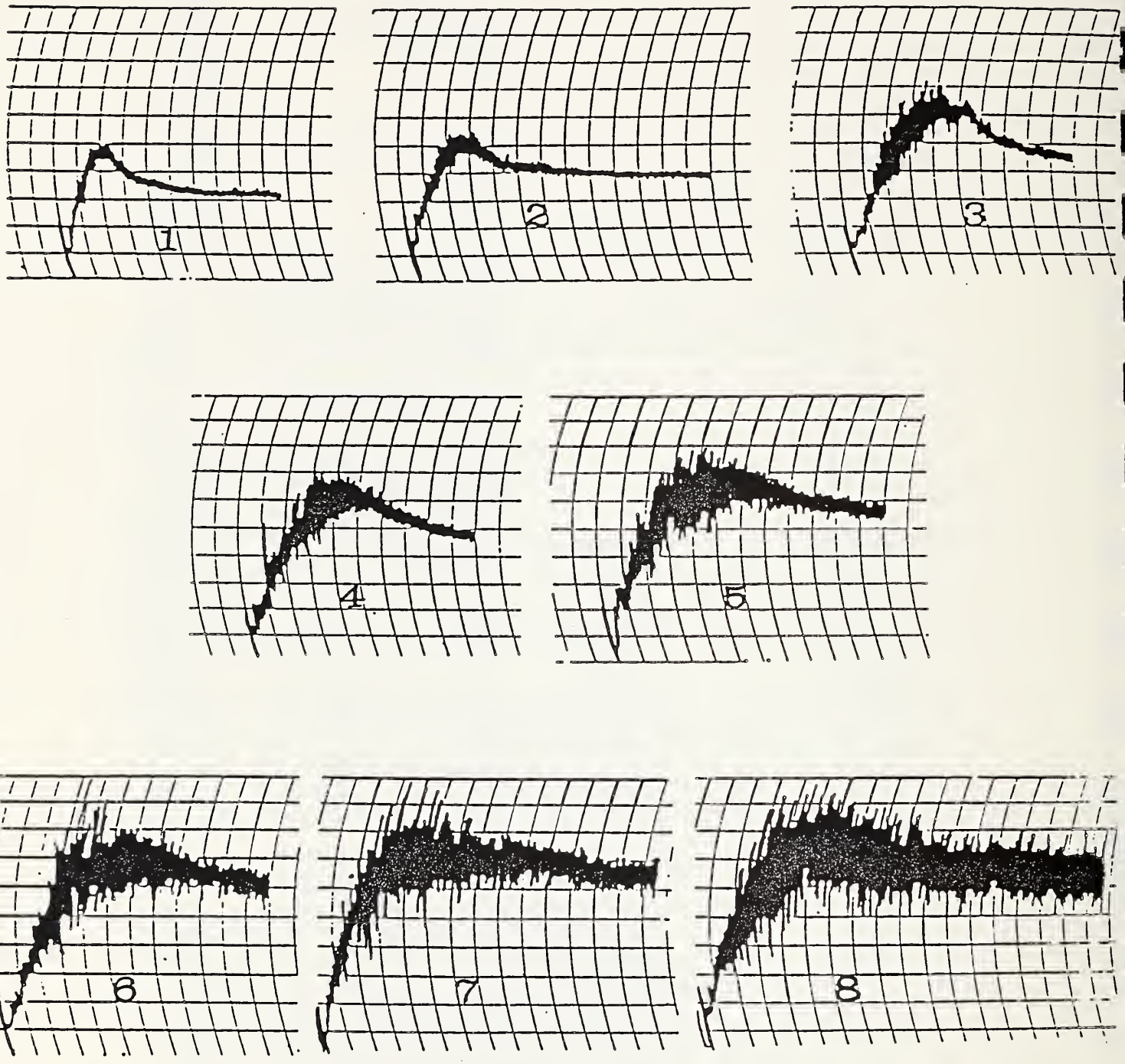
QUALITY DATA OF DURUM SAMPLES 1985 CROP

TABLE 21 STATE=CALIFORNIA STATION=DAVIS NURSERY=ADVANCED - EXPERIMENT #573

VARIETY STD	TEST WT	1000 K.WT	% LG	% SM	WHT PRO	SEMO EXTR	DUST COLOR	MIXO SCR	SCORE ***	DEFICIENCIES TW	KW	SM	WP	SX	DU
GALLARETA 'S'	63.7	42.6	49	7	13.3	63.4	75	6	3		MJ	MI			
MEXICALI 75 S	62.2	52.9	73	2	13.0	62.1	75	7	4						
YAVAROS	63.8	57.1	68	5	13.2	59.2	65	4	2						MI
573/1	62.7	46.7	65	5	13.5	61.9	55	6	1		MJ				MJ
573/2	63.0	46.7	58	3	13.0	60.2	70	7	3		MJ				
573/5	63.2	49.8	51	9	13.2	60.9	65	7	2		MI	MI			MI
573/6	62.9	45.2	49	7	13.2	59.1	75	4	2		MJ	MI		MI	
573/8	62.9	49.8	63	4	14.2	58.7	75	5	3		MI			MI	
573/9	63.7	49.5	68	4	12.5	60.4	70	4	3		MI		MI		
573/10	62.7	45.2	59	5	13.8	61.8	70	7	3		MJ				
573/15	61.8	49.5	60	4	12.9	58.6	75	4	3		MI			MI	
573/17	62.1	42.6	56	4	14.9	60.0	75	4	3		MJ				
573/19	63.2	50.3	60	4	14.6	60.9	80	8	4		MI				
573/20	63.5	51.0	67	3	13.6	64.9	70	6	4						
573/21	62.1	48.1	65	4	14.2	61.8	80	7	4		MI				
573/23	64.0	45.2	52	4	12.5	61.7	80	6	2		MJ		MI		
573/24	64.2	50.5	71	4	13.1	62.0	65	7	2		MI				MI

DEFICIENCIES	TW	KW	SM	WP	SX	DU
AVG OF STANDARDS	62.2	52.9	2	13.0	62.1	75
MINOR FAULTING VALUES	60.0	50.8	7	12.5	59.1	65
MAJOR FAULTING VALUES	59.1	47.8	12	11.5	58.1	60

***EVALUATION 1=NO PROMISE, 2=LITTLE PROMISE, 3=SOME PROMISE, 4=GOOD PROMISE



REFERENCE MIXOGRAMS

DURUM WHEAT